

> For canceling the display demonstration, see page 6.
> Para cancelar la demostración en pantalla, consulte la página 6.
> Pour annuler la démonstration des affichages, référez-vous à la page 6 .

For installation and connections, refer to the separate manual. Para la instalación y las conexiones, refiérase al manual separado. Pour l'installation et les raccordements, se référer au manuel séparé.

## /|||/|/|// INSTRUCTIONS manual de instrucciones MANUEL D'INSTRUCTIONS

## For customer Use:

Enter below the Model No. and Serial No. which are located on the top or bottom of the cabinet. Retain this information for future reference.

Model No.
Serial No.

Thank you for purchasing a JVC product．
Please read all instructions carefully before operation，to ensure your complete understanding and to obtain the best possible performance from the unit．

## INFORMATION（For U．S．A．）

This equipment has been tested and found to comply with the limits for a Class B digital device，pursuant to Part 15 of the FCC Rules．These limits are designed to provide reasonable protection against harmful interference in a residential installation．This equipment generates，uses，and can radiate radio frequency energy and，if not installed and used in accordance with the instructions，may cause harmful interference to radio communications． However，there is no guarantee that interference will not occur in a particular installation．If this equipment does cause harmful interference to radio or television reception，which can be determined by turning the equipment off and on，the user is encouraged to try to correct the interference by one or more of the following measures：
－Reorient or relocate the receiving antenna．
－Increase the separation between the equipment and receiver．
－Connect the equipment into an outlet on a circuit different from that to which the receiver is connected．
－Consult the dealer or an experienced radio／TV technician for help．

## Caution：

Changes or modifications not approved by JVC could void the user＇s authority to operate the equipment．

## IMPORTANT FOR LASER PRODUCTS

1．CLASS 1 LASER PRODUCT
2．CAUTION：Do not open the top cover．There are no user serviceable parts inside the unit；leave all servicing to qualified service personnel．
3．CAUTION：（For U．S．A．）Visible and／or invisible class II laser radiation when open．Do not stare into beam． （For Canada）Visible and／or invisible class 1M laser radiation when open．Do not view directly with optical instruments．
4．REPRODUCTION OF LABEL：CAUTION LABEL，PLACED OUTSIDE THE UNIT．

| CAUTION | ATIENTION | AVISO | VARNING | 注意 | CAUTION |
| :---: | :---: | :---: | :---: | :---: | :---: |
| VISIBLE AND／OR INVISIBLE CLASS 1M | RAYONNEMENT LASER VISIBLE ET／OU | RADIACIÓN LÁSER DE CLASE 1M | SYNUG OCH／EUER OSYNLG | ここを開くと可視及びまたは不可視 | VISIBLE AND／OR INVISIBLE CLASS II |
| LASER RADIATION | INVISIBLE DE CLASSE | VISIBLE Y／O INVISIBLE | LASERSTRALNING | のクラス1M | LASER RADIATION |
| DO NOT | 1M UNE FOIS OUVERT． | CUANDO ESTA | KLASS 1M，NÂR DENNA | レード | WHEN OPE |
| DIRECTLY WITH | NE PAS REGARDER | ABIERTO．NO MIRAR | DER ÂR ÖPPNAD． | 出ます。 | DO NOT STARE |
| OPTICALINSTRUMENTS． | DIRECTEMENT AVEC DES INSTRUMENTS | DIRECTAMENTE CON INSTRUMENTAL | BETRAKTA EJ STRALEN MED OPTSKA | 光学装置で直接 | INTO BEAM． |
| － 1 ：2001 <br> （ENG） | DES INSTRUMENTS OPTIQUES．（FRA） | CON INSTRUMENTAL ÓPTICO． （ESP） | STRALEN MED OPTSKA INSTRUMENT． （SWE） | 見ないでください。 | FDA 21 CR |



## Warning：

If you need to operate the unit while driving，be sure to look around carefully or you may be involved in a traffic accident．

## For safety．．．

－Do not raise the volume level too much，as this will block outside sounds，making driving dangerous．
－Stop the car before performing any complicated operations．

## Temperature inside the car．．．

If you have parked the car for a long time in hot or cold weather，wait until the temperature in the car becomes normal before operating the unit．

## ［ How to reset your unit


－Your preset adjustments will also be erased．

「 How to forcibly eject a disc

－Be careful not to drop the disc when it ejects．
－If this does not work，reset your unit．

## －How to use the M MODE button

If you press M MODE，the unit goes into functions mode， then the number buttons and $\mathbf{\Delta / \nabla}$ buttons will work as different function buttons．

Ex．：When number button 2 works as MO（monaural）button．


To use these buttons for their original functions again after pressing M MODE，press M MODE again． －Waiting for about 5 seconds without pressing any of these buttons will automatically cancels the functions mode．

[^0]
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The control panel illustrations used for explanation in this manual is of KD－APD49．

「 Detaching the control panel


## 「 Attaching the control panel



## Parts identification

## Display window


$1 \boldsymbol{\Delta}$ (up) / $\boldsymbol{\nabla}$ (down) buttons
2 ㅡ (eject) button
3 しוノ ATT (standby/on attenuator) button
4 Control dial
5 Remote sensor
DO NOT expose the remote sensor to strong light
(direct sunlight or artificial lighting).
6 BAND button
7 Loading slot
8 Display window
[9 EQ (equalizer) button
10 DISP (display) button
$11 \boldsymbol{\Delta}$ (control panel release) button
12 i (iPod) button

14 SRC (source) button
15 SEL (select) button
16 M MODE button
17 MO (monaural) button
18 SSM (Strong-station Sequential Memory) button

19 Number buttons
20 RPT (repeat) button
21 RND (random) button
22 AUX (auxiliary) input jack
23 Source display / Track number / Folder number /
Time countdown indicator
24 Tr (track) indicator
25 DISC indicator
26 Playback mode/item indicators-RND (random), - (disc), $\boldsymbol{\sigma}$ (folder), RPT (repeat)

27 Tuner reception indicators-ST (stereo), MO (monaural)
28 Sound mode (iEQ: intelligent equalizer) indicators -CLASSIC, HIP HOP, JAZZ, ROCK, POPS, USER
29 LOUD (Ioudness) indicator
30 EQ (equalizer) indicator
31 Disc information indicatorsTAG (Tag information), $\boldsymbol{\Gamma}$ (folder), $\boldsymbol{\boldsymbol { B }}$ (track/file) 32 Main display

## Remote controller

## Installing the lithium coin battery (CR2025)



For USA-California Only:
This product contains a CR Coin Cell Lithium Battery which contains Perchlorate Material-special handling may apply.
See www.dtsc.ca.gov/hazardouswaste/perchlorate

## Aim the remote controller directly at the remote sensor on the unit. Make sure there is no obstacle in between.

## Warning:

- Do not install any battery other than CR2025 or its equivalent; otherwise, it may explode.
- Do not leave the remote controller in a place (such as the dashboard) exposed to direct sunlight for a long time; otherwise, it may explode.
- Store the battery in a place where children cannot reach to avoid the risk of accidents.
- To prevent the battery from over-heating, cracking, or starting a fire:
- Do not recharge, short, disassemble, heat the battery, or dispose of it in a fire.
- Do not leave the battery with other metallic materials.
- Do not poke the battery with tweezers or similar tools.
- Wrap the battery with tape and insulate when throwing away or saving it.

Main elements and features


1 J/I/ATT (standby/on/attenuator) button

- Turns the power on if pressed briefly or attenuates the sound when the power is on.
- Turns the power off if pressed and held.
$\Delta U($ up $) / D($ down $) ~$ buttons
- Changes the FM/AM bands with $\triangle U$.
- Changes the preset stations with D $\boldsymbol{\nabla}$.
- Changes the folder of the MP3/WMA discs.
- While listening to an Apple iPod.
- Enters the main menu if pressed and held.
(Now $\boldsymbol{\Delta} / D \nabla / \subset R / F$ work as the menu selecting buttons.)
- While listening to an iPod (in menu selecting mode):
- Returns to the previous menu if pressed $\mathbf{\Delta U}$ briefly.
- Selects an item if pressed D $\boldsymbol{\nabla}$ briefly. (Then, press and hold D $\boldsymbol{\nabla}$ to play back the selection directly.)
3 VOL-/VOL + buttons
- Adjusts the volume level.

4 SOUND button

- Selects the sound mode (iEQ: intelligent equalizer).

5 SOURCE button

- Selects the source.
$6<R$ (reverse) $/ F$ (forward) buttons
- Searches for stations if pressed briefly.
- Fast-forwards or reverses the track if pressed and held.
- Changes the track if pressed briefly.
- While listening to an iPod (in menu selecting mode):
- Accelerated file search: Hold $\langle R / F \rightarrow$ to fast skip during song search in the main menu.


## Getting started

Basic operations
(1) Turn on the power.


*1 You cannot select "CD" as the playback source if there is no disc in the unit.
*2 "NO IPOD" appears if an iPod is not connected.

## 3 For FM/AM tuner


(4) Adjust the volume.


## VOLUME 20

Volume level appears.
Adjust the sound as you want. (See pages 12 and 13.)

## Caution on volume setting:

Disss produce very little noise compared with other sources. Lower the volume before playing a disc to avoid damaging the speakers by the sudden increase of the output level.

| To drop the volume in a <br> moment (ATT) <br> To restore the sound, press <br> the button again. |  |
| :--- | :--- |
| To turn off the power |  |

## Basic settings

- See also "General settings - PSM" on pages 14 and 15.

1


2


1 Canceling the display demonstrations Select "DEMO," then "DEMO OFF."

## Setting the clock

Select "CLOCK HOUR," then adjust the hour.
Select "CLOCK MIN" (minute), then adjust the minute.

3 Finish the procedure.


To check the current clock time while the power is turned off


Clock time is shown on the display for about 5 seconds. See also page 14.

## Radio operations



2


Lights up when receiving an FM stereo broadcast with sufficient signal strength.
88.30MHz

## (3) start searching for a station.



When a station is received, searching stops.
To stop searching, press the same button again.

## To tune in to a station manually

 In step (3) above...1


2 Select a desired station frequency.


When an FM stereo broadcast is hard to receive


Lights up when monaural mode is activated. MO)

## MONO

Reception improves, but the stereo effect will be lost.

To restore the stereo effect, repeat the same procedure. "MONO OFF" appears and the MO indicator goes off.

## Storing stations in memory

You can preset six stations for each band.
FM station automatic presettingSSM (Strong-station Sequential Memory)
1 Select the FM band (FM1 - FM3) you want to store into.


2
mode


3

"SSM" flashes, then disappears when automatic presetting is over.

Local FM stations with the strongest signals are searched and stored automatically in the FM band.

## Manual presetting

Ex.: Storing the FM station of 92.50 MHz into preset number 4 of the FM1 band.

1


2


### 92.50 MHz

3

[Hold]


Preset number flashes for a while.

Listening to a preset station
1 bano

- $\odot \quad \square \mathrm{FM} 1 \rightarrow \mathrm{FM} 2 \rightarrow \mathrm{FM} 3 \rightarrow$

2 Select the preset station ( $1-6$ ) you want.

or


To check other information while listening to the radio


[^1]
## Disc operations

## Playing a disc in the unit

All tracks will be played repeatedly until you change the source or eject the disc.


To stop play and eject the disc


|  | [Hold] To fast-forward or reverse the track |
| :---: | :---: |
|  | [Press] To go to the next or previous track |
|  | [Press] To go to the next or previous folder (only for MP3 or WMA discs) |

## To locate a particular track (for CD) or folder (for MP3 or WMA discs) directly To select a number from $01-06$ :



To select a number from $07-12$ :

－To use direct folder access on MP3／WMA discs，it is required that folders are assigned with 2－digit numbers at the beginning of their folder names－ $01,02,03$ ，and so on．

To select a particular track in a folder （for MP3 or WMA discs）：


## Other main functions

## Skipping tracks quickly during play

－For MP3 or WMA discs，you can skip tracks within the same folder．
Ex．：To select track 32 while playing a track whose number is a single digit（1 to 9）

1
mode
M
2


Each time you press the button，you can skip 10 tracks．
－After the last track，the first track will be selected and vice versa．

3


## Prohibiting disc ejection

You can lock a disc in the loading slot．

＂EJECT LOCK＂flashes on the display．
To cancel the prohibition，repeat the same procedure．

Changing the display information


While playing an audio CD or CD Text
A $\rightarrow$ B Disc title／performer ${ }^{* 1} \rightarrow$ Track title ${ }^{* 1}$［』］$\rightarrow$（back to the beginning）

## While playing an MP3 or a WMA track

－When＂TAG DISPLAY＂is set to＂TAG ON＂ （see page 15）
$A \rightarrow B \rightarrow$ Album name／performer（folder name ${ }^{* 2}$ ）［TAG $\left.\square\right] \rightarrow$ Track title（file name ${ }^{* 2}$ ）［TAG ．月］$\rightarrow$（back to the beginning）
－When＂TAG DISPLAY＂is set to＂TAG OFF＂
$A \rightarrow B \rightarrow$ Folder name［ $\square \rightarrow$ File name ［』］$\rightarrow$（back to the beginning）

A ：Current track number with the elapsed playing time
B ：Current track number with the clock time
［ ］：Corresponding indicator lights up on the display．
＊1 If the current disc is an audio CD，＂NO NAME＂appears．
＊2 If an MP3／WMA file does not have Tag information， folder name and file name appear．In this case，the TAG indicator will not light up．

## Selecting the playback modes

You can use only one of the following playback modes at a time.

## 1

$M$
2 Select your desired playback mode.
$\square$ Repeat play
Mode $\quad$ Plays repeatedly

TRACK RPT : The current track. [RPT]
FOLDER RPT*: All tracks of the current folder. [ $\boldsymbol{\sigma}$ RPT]
RPT OFF : Cancels.

| - Random play | play |
| :---: | :---: |
| Mode P | Plays at random |
| FOLDER RND*: A | All tracks of the current folder, then the tracks of the next folder and so on. [RND $ూ$ ] |
| ALL RND : Al | All tracks of the current disc. <br> [RND 0 ] |
| RND OFF : C | : Cancels. |
| * Only while playing an MP3 or a WMA disc. |  |
| [ ]: Correspondi display. | nding indicator lights up on the |

## iPod operations

You can play songs in an Apple iPod by connecting it with the supplied direct connection cable for iPod. You can control playback from the unit or from your iPod.

- Disconnecting the iPod will stop playback. Press SRC to listen to another playback source.


## Caution:

- Avoid using the iPod if it might hinder your safety while driving.
- Make sure all important data has been backed up to avoid losing the data.
- For connection, see the Installation/Connection Manual (separate volume).
- For details, refer also to the manual supplied for your iPod.


## (1) Connect an iPod.



## If an iPod has been connected...



To directly select "IPOD" as the source while listening to another source or when the power is turned off.

Playback starts automatically from where it had been paused previously.

## 2 Adjust the volume.


(3)

Adjust the sound as you want. (See pages 12 and 13.)

## To control playback from your iPod

"IPOD MODE" appears on the display.

- Press and hold this button again to control playback from the unit. "HEAD MODE" appears on the display.


## Playback control from the unit $\square$

| [Press] Go to the next or previous |
| :--- | :--- | :--- |
| track |

Selecting a track from the menu

## 1 Enter the main menu.



Now the $\mathbf{\Delta} / \mathbf{\nabla} / 1 \boldsymbol{<} \boldsymbol{V} / \boldsymbol{\Delta} \boldsymbol{\wedge} /$ number buttons work as the menu selecting buttons.

## 2 Select the desired menu.



PLAYLIST $\leftrightarrow$ ARTIST $\leftrightarrow$ ALBUM $\leftrightarrow$ SONG
$\leftrightarrow$ PODCAST $\leftrightarrow$ GENRE $\leftrightarrow$ COMPOSER
$\leftrightarrow$ AUDIOBOOK $\leftrightarrow$ (back to the beginning)

- Pressing the number buttons can directly select the desired menu (see the left column for details).


## 3 Confirm the selection.



To move back to the previous menu, press $\mathbf{\Delta}$.

- Holding the button will start play back the selected item directly.
- If a track is selected, playback starts automatically.
- If the selected item has another layer, you will enter the layer. Repeat steps $\mathbf{2}$ and $\mathbf{3}$ until the desired track is played.
- Accelerated file search: Hold $1 \ll \boldsymbol{V} \| \boldsymbol{\wedge}$ to fast skip during song search in the main menu.

To exit from menu selecting mode

[Hold] or


* The menu selecting mode will be canceled:
- If no operations are performed for about 10 seconds.
- When you confirm the selection of a track.
- Pressing some other buttons such as DISP, SEL, MODE, or EQ.


## Selecting the playback modes

1 MODE
2 Select your desired playback mode.

| $\square$ Repeat play |
| :--- | :--- |

Mode $\quad$ Playback functions (as on iPod)
ONE RPT : Same as "Repeat One." [RPT]
ALL RPT : Same as "Repeat All." [ © RPT]
RPT OFF : Cancels.

| Random play |
| :--- |
| Mode $\quad$ Playback functions (as on iPod) |
| SONG RND : Same as "Shuffle Songs." [RND] |
| ALBUM RND*: Same as "Shuffle Albums." |
| [RND $]$ |
| RND OFF : Cancels. |
| * Functions only ifyou select "ALL" in "ALBUMS" of |
| the main menu. |

[ ]: Corresponding indicator lights up on the display.

## To check other information while listening

## to an iPod



## Current track number with the elapsed playing time $\rightarrow$ Current track number with the clock time $\rightarrow$ Track title ${ }^{*} \rightarrow$ Album name/ performer* $\rightarrow$ (back to the beginning)

* When "TAG DISPLAY" is setto "TAG OFF" (see page 15), file name and folder name appear.


## Sound adjustments

You can select a preset sound mode suitable to the music genre (iEQ: intelligent equalizer).

## Adjusting the sound

You can adjust the sound characteristics to your preference.

- The adjustment you make will be stored for the currently selected sound mode (iEQ) including "USER."

1


2


Indication, [Range]
FADER*2, [R06 to F06]
Adjust the front and rear speaker balance.
BALANCE*3, [L06 to R06]
Adjust the left and right speaker balance.

Indication, [Range]
LOUD*4 (loudness), [LOUD ON or LOUD OFF] Boost low and high frequencies to produce a well-balanced sound at a low volume level.

SUBWOOFER ${ }^{* 1}$, [00 to 08, initial: 04]
Adjust the subwoofer output level.
VOL ADJ (volume adjust), [ -05 to +05 , initial: 00]
Adjust the volume level of each source (except FM), in relation to the FM volume level. The volume level will automatically increase or decrease when you change the source.

- Before making an adjustment, select the source you want to adjust.

VOLUME, [00 to 50 or 00 to 30 ]*5
Adjust the volume.
*1 Displayed only when "L/O MODE" is set to "SUB.W" (see page 15).
*2 If you are using a two-speaker system, set the fader level to "00."
*3 This adjustment will not affect the subwoofer output.
*4 The adjustment made (LOUD ON/LOUD OFF) will be applied to all sound modes.
${ }^{*} 5$ Depending on the amplifier gain control setting. (See page 15 for details.)

## Storing your own sound mode

You can adjust the sound modes and store your own adjustments in memory.

## 1 Select a sound mode.



## 2 Enter the adjustment mode.



3 Select a sound characteristic.


4 Adjust the sound elements of the selected sound characteristic.

Adjust the frequency.


2 Adjust the level.


3 Adjust the quality slope (Q).


| Sound <br> elements | Range/selectable items |  |  |
| :--- | :--- | :--- | :--- |
|  | BASS | MID | TRE |
| Frequency | 60 Hz | 500 Hz | 7.5 kHz |
|  | 80 Hz | 1.0 kHz | 10.0 kHz |
|  | 100 Hz | 1.5 kHz | 12.5 kHz |
|  | 120 Hz | 2.5 kHz | 15.0 kHz |
| Level | -06 to | -06 to | -06 to |
|  | +06 | +06 | +06 |
| Q (Q-slope) | $Q 0.5$ | $Q 0.75$ | Q0.75 |
|  | $Q 1.0$ | $Q 1.0$ | Q1.25 |
|  | $Q 1.5$ | $Q 1.25$ |  |
|  | $Q 2.0$ | Q1.5 |  |

BASS: Bass MID: Mid-range TRE: Treble

## 5 The adjustment made will be stored automatically. Repeat steps 3 and 4 to adjust other sound characteristics.

## General settings - PSM

You can change PSM (Preferred Setting Mode) items listed in the table below and on page 15.

1


2 Select a PSM item.


## 3 Adjust the PSM item selected.



## 4 Repeat steps 2 and 3 to adjust other PSM items if necessary.

## 5 Finish the procedure.



| Indications | Item <br> (_: Initial) | Setting, [reference page] |
| :--- | :--- | :--- |
| DEMO <br> Display <br> demonstration <br> - DEMO ON | : The display demonstration will be activated automatically if no <br> operation is done for about 20 seconds, [6]. <br> : Cancels. |  |
| CLOCK DISP*1 <br> Clock display | - CLOCK ON | : The clock time is shown on the display at all times when the power is |
| turned off. |  |  |
| : Cancels; pressing DISP will show the clock time for about 5 seconds |  |  |
| when the power is turned off, [6]. |  |  |

*1 If the power supply is not interrupted by turning off the ignition key of your car, it is recommended that you select "CLOCK OFF" to save the car's battery.

| Indications | Item <br> (__: Initial) | Setting, [reference page] |
| :---: | :---: | :---: |
| AUDIOBOOKS*2 <br> Speed control of "Audiobook" | - NORMAL <br> - FASTER <br> - SLOWER | : You can select the playback speed of the "Audiobook" sound file in your iPod. |
| SCROLL*3 <br> Scroll | $\begin{aligned} & \text { - ONCE } \\ & \text { - AUTO } \\ & \text { - OFF } \end{aligned}$ | : Scrolls the displayed information once. <br> : Repeats scrolling (at 5-second intervals). <br> : Cancels. <br> - Pressing DISP for more than one second can scroll the display regardless of the setting. |
| L/O MODE <br> Line output mode | - REAR <br> - SUB.W | : Select if the REAR LINE OUT terminals are used for connecting the speakers (through an external amplifier). <br> : Select if the REAR LINE OUT terminals are used for connecting a subwoofer (through an external amplifier). |
| SUB.W FREQ*4 <br> Subwoofer cutoff frequency | - LOW <br> - MID <br> - HIGH | : Frequencies lower than 90 Hz are sent to the subwoofer. <br> : Frequencies lower than 135 Hz are sent to the subwoofer. <br> : Frequencies lower than 180 Hz are sent to the subwoofer. |
| TAG DISPLAY <br> Tag display | - TAGON <br> - TAG OFF | : Shows the Tag information while playing MP3/WMA tracks, [9]. <br> : Cancels. |
| AMP GAIN <br> Amplifier gain control | - LOW POWER <br> - HIGH POWER | : VOLUME 00 - VOLUME 30 . (Select this if the maximum power of the speaker is less than 50 W to avoid damaging the speaker.) <br> : VOLUME 00 - VOLUME 50. |
| IF BAND <br> Intermediate frequency band | - AUTO <br> - WIDE | : Increases the tuner selectivity to reduce interference noise between close stations. (The stereo effect may be lost.) <br> : Subject to interference noise from adjacent stations, but the sound quality will not be degraded and the stereo effect will remain. |
| AREA <br> Tuner channel interval | - AREA US <br> - AREA EU <br> - AREA SA | : When using in North/Central/South America. AM/FM intervals are set to $10 \mathrm{kHz} / 200 \mathrm{kHz}$. <br> : When using in any other areas. AM/FM intervals are set to $9 \mathrm{kHz} /$ 50 kHz ( 100 kHz during auto search). <br> : When using in South American countries where FM interval is 100 kHz . AM interval is set to 10 kHz . |

[^2]
## Other external component

## operations

You can connect an external component to the AUX (auxiliary) input jack on the control panel.

3.5 mm stereo mini plug (not supplied)
(1)


2 Turn on the connected component and start playing the source.

3 Adjust the volume.

(4) Adjust the sound as you want. (See pages 12 and 13.)

To check other information while listening to an external component


## Ititle assignment

You can assign names to 30 station frequencies (FM and AM) and up to 8 characters for each station name.

1 Select FM/AM.


2 Show the title entry screen.


3 Assigna title.
Select a character.


2 Move to the next (or previous) character position.

[3 Repeat steps 1 and 2 until you finish entering the title.

4 Finish the procedure.


## To erase the entire title

In step 2 above...


## Maintenance

## How to clean the connectors

Frequent detachment will deteriorate the connectors. To minimize this possibility, periodically wipe the connectors with a cotton swab or cloth moistened with alcohol, being careful not to damage the connectors.


## Moisture condensation

Moisture may condense on the lens inside the unit in the following cases:

- After starting the heater in the car.
- If it becomes very humid inside the car.

Should this occur, the unit may malfunction. In this case, eject the disc and leave the unit turned on for a few hours until the moisture has evaporated.

## How to handle discs

When removing a disc from its case, press down the center holder of the case and lift the disc out, holding it by the edges.

Center holder


- Always hold the disc by the edges. Do not touch its recording surface.
When storing a disc in its case, gently insert the disc around the center holder (with the printed surface facing up).
- Make sure to store discs in cases after use.


## To keep discs clean

A dirty disc may not play correctly. If a disc does become dirty, wipe it with a soft cloth in a straight line from center
 to edge.

- Do not use any solvents (for example, conventional record cleaner, spray, thinner, benzine, etc.) to clean discs.


## To play new discs

New discs may have some rough spots around the inner and outer edges. If such a disc is used, this unit may reject the disc.
To remove these rough spots, rub the edges with a pencil or ball-point pen, etc.

## Do not use the following discs:

Single CD
$-8 \mathrm{~cm}\left(3-3 / 16^{\prime \prime}\right)$ disc


Sticker and


Stick-on label


Unusual shape


## More about this unit

## Basic operations

## Turning on the power

- By pressing SRC (source) or i (iPod) button on the unit, you can also turn on the power. If the source is ready, playback also starts.


## Turning off the power

- If you turn off the power while listening to a track, playback will start from where it had been stopped previously next time you turn on the power.


## General

- If you change the source while listening to a disc or an iPod, playback stops.
Next time you select "CD" or "IPOD" as the playback source, playback will start from where it had been stopped/paused previously.
- After ejecting a disc or disconnecting an iPod, "NO DISC" or "NO IPOD" appears and you cannot operate some of the buttons. Insert another disc, connect an iPod, or press SRC to select another playback source.


## Tuner operations

## Storing stations in memory

- During SSM search...
- All previously stored stations are erased and the stations are stored anew.
- Received stations are preset in No. 1 (lowest frequency) to No. 6 (highest frequency).
- When SSM is over, the station stored in No. 1 will be automatically tuned in.
- When storing a station manually, the previously preset station is erased when a new station is stored in the same preset number.


## Disc operations

## Caution for DualDisc playback

- The Non-DVD side of a "DualDisc" does not comply with the "Compact Disc Digital Audio" standard. Therefore, the use of Non-DVD side of a DualDisc on this product may not be recommended.


## General

- This unit has been designed to reproduce CDs/CD Texts, and CD-Rs (Recordable)/CD-RWs (Rewritable) in audio CD (CD-DA), MP3 and WMA formats.
- When a disc is inserted upside down, "PLEASE" and "EJECT" appear alternately on the display. Press $\boldsymbol{\Delta}$ to eject the disc.
- MP3 and WMA "tracks" (words "file" and "track" are used interchangeably) are recorded in "folders."
- While fast-forwarding or reversing on an MP3 or WMA disc, you can only hear intermittent sounds.


## Playing a CD-R or CD-RW

- Use only "finalized" CD-Rs or CD-RWs.
- This unit can only play back files of the same type as those which are detected first if a disc includes both audio CD (CD-DA) files and MP3/WMA files.
- This unit can play back multi-session discs; however, unclosed sessions will be skipped while playing.
- Some CD-Rs or CD-RWs may not play back on this unit because of their disc characteristics, or for the following reasons:
- Discs are dirty or scratched.
- Moisture condensation has occurred on the lens inside the unit.
- The pickup lens inside the unit is dirty.
- The files on the CD-R/CD-RW are written using the "Packet Write" method.
- There are improper recording conditions (missing data, etc.) or media conditions (stained, scratched, warped, etc.).
- CD-RWs may require a longer readout time since the reflectance of CD-RWs is lower than that of regular CDs.
- Do not use the following CD-Rs or CD-RWs:
- Discs with stickers, labels, or a protective seal stuck to the surface.
- Discs on which labels can be directly printed by an ink jet printer.
Using these discs under high temperature or high humidity may cause malfunctions or damage to the unit.


## Playing an MP3/WMA disc

- This unit can play back MP3/WMA files with the extension code <.mp3> or <.wma> (regardless of the letter case-upper/lower).
- This unit can show the names of albums, artists (performer), and Tag (Version 1.0, 1.1, 2.2, 2.3, or 2.4) for MP3 files and for WMA files.
- This unit can display only one-byte characters. No other characters can be correctly displayed.
- This unit can play back MP3/WMA files meeting the conditions below:
- Bit rate: 8 kbps — 320 kbps
- Sampling frequency:
$48 \mathrm{kHz}, 44.1 \mathrm{kHz}, 32 \mathrm{kHz}$ (for MPEG-1)
24 kHz, $22.05 \mathrm{kHz}, 16 \mathrm{kHz}$ (for MPEG-2)
- Disc format: ISO 9660 Level 1/Level 2, Romeo, Joliet, Windows long file name
- The maximum number of characters for file/folder names vary depending on the disc format used (includes 4 extension characters-<.mp3> or <.wma>).
- ISO 9660 Level 1: up to 12 characters
- ISO 9660 Level 2: up to 31 characters
- Romeo: up to 128 characters
- Joliet: up to 64 characters
- Windows long file name: up to 128 characters
- This unit can recognize a total of 512 files, 255 folders, and 8 hierarchical levels.
- This unit can play back files recorded in VBR (variable bit rate).
Files recorded in VBR have a discrepancy in the elapsed time display, and do not show the actual elapsed time. In particular, this difference becomes noticeable after performing the search function.
- This unit cannot play back the following files:
- MP3 files encoded in MP3i and MP3 PRO format.
- MP3 files encoded in an inappropriate format.
- MP3 files encoded with Layer 1/2.
- WMA files encoded in lossless, professional, and voice format.
- WMA files which are not based upon Windows Media ${ }^{\text {® }}$ Audio.
- WMA files copy-protected with DRM.
- Files which have data such as AIFF, ATRAC3, etc.
- The search function works but search speed is not constant.


## Ejecting a disc

- If the ejected disc is not removed within 15 seconds, it is automatically inserted into the loading slot again to protect it from dust. Playback starts automatically.


## iPod operations

- Controllable iPod:
- iPod mini
- iPod G4
- iPod photo
- iPod nano (1st \& 2nd Generation)
- iPod with video (5th Generation)
- Update your iPod to the latest software version before using it with this unit.
- When you turn on this unit, the iPod is charged through this unit.
- While connecting an iPod with Video:
- No video shows on the iPod's display or the external monitor (only the audio part is available).
- It is not possible to browse video files on the "Video" menu. (If you connect the iPod during the playback or pausing of a video file, resuming playback will not work.)
- iPod shuffle cannot be used with this unit.
- You can control the iPod from this unit when "JVC" or " $\sqrt{ }$ " appears on the iPod display after connection.
- The song order displayed on the selection menu of this unit may differ from that of the iPod.
- If playback is stopped, select a track from the selection menu or press BAND to playback the same track again.
- The text information may not be displayed correctly:
- Some characters such as accented letters cannot be shown correctly on the display.
- Communication between the iPod and the unit is not stable.
- If the text information includes more than 11 characters, it scrolls on the display. This unit can display up to 64 characters.


## Notice:

When operating an iPod, some operations may not be performed correctly or as intended. In this case, visit the following JVC web site:
[http://www.jvc-victor.co.jp/english/car/](http://www.jvc-victor.co.jp/english/car/)

## General settings—PSM

- If you change the "AMP GAIN" setting from "HIGH POWER" to "LOW POWER" while the volume level is set higher than "VOLUME 30," the unit automatically changes the volume level to "VOLUME 30."

| Sound mode | Preset value |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | BASS (bass) |  |  | MID (mid-range) |  |  | TRE (treble) |  |  | LOUD <br> (loudness) |
|  | Freq. | Level | Q | Freq. | Level | Q | Freq. | Level | 0 |  |
| USER | 60 Hz | 00 | Q1.0 | 1.0 kHz | 00 | Q1.25 | 7.5 kHz | 00 | Q1.25 | OFF |
| ROCK | 100 Hz | +03 | Q1.0 | 1.0 kHz | 00 | Q1.25 | 10.0 kHz | +02 | Q1.25 |  |
| CLASSIC | 80 Hz | +01 | Q1.0 | 1.0 kHz | 00 | Q1.25 | 10.0 kHz | +03 | Q1.25 |  |
| POP | 100 Hz | +02 | Q1.0 | 1.0 kHz | +01 | Q1.25 | 10.0 kHz | +02 | Q1.25 |  |
| HIP HOP | 60 Hz | +04 | Q1.0 | 1.0 kHz | -02 | Q1.0 | 10.0 kHz | +01 | Q1.25 |  |
| JAZZ | 80 Hz | +03 | Q1.0 | 1.0 kHz | 00 | Q1.25 | 10.0 kHz | +03 | Q1.25 |  |

Freq.: Frequency $\mathrm{Q}: \mathrm{Q}$-slope

## Troubleshooting

What appears to be trouble is not always serious. Check the following points before calling a service center.

| Symptoms |  | Remedies/Causes |
| :---: | :---: | :---: |
|  | - Sound cannot be heard from the speakers. | - Adjust the volume to the optimum level. <br> - Check the cords and connections. |
|  | - The unit does not work at all. | Reset the unit (see page 3). |
| $\sum_{i=1}^{\sum}$ | - SSM automatic presetting does not work. | Store stations manually. |
|  | - Static noise while listening to the radio. | Connect the antenna firmly. |
|  | - Disc cannot be played back. | Insert the disc correctly. |
|  | - CD-R/CD-RW cannot be played back. <br> - Tracks on the CD-R/CD-RW cannot be skipped. | - Insert a finalized CD-R/CD-RW. <br> - Finalize the CD-R/CD-RW with the component which you used for recording. |
|  | - Disc can neither be played back nor ejected. | - Unlock the disc (see page 9). <br> - Eject the disc forcibly (see page 3). |
|  | - Disc sound is sometimes interrupted. | - Stop playback while driving on rough roads. <br> - Change the disc. <br> - Check the cords and connections. |
|  | - "NO DISC" appears on the display. <br> - "PLEASE" and "EJECT" appear alternately on the display. | Insert a playable disc into the loading slot. |

## Symptoms

Remedies/Causes

- Disc cannot be played back.
- Use a disc with MP3/WMA tracks recorded in a format compliant with ISO 9660 Level 1, Level 2, Romeo, or Joliet.
- Add the extension code <.mp3> or <.wma> to the file names.
- Noise is generated.

Skip to another track or change the disc. (Do not add the extension code <.mp3> or <.wma> to non-MP3 or WMA tracks.)

- A longer readout time is required ("READING" Do not use too many hierarchical levels and folders. keeps flashing on the display).
- Tracks do not play back in the order you have intended them to play.

The playback order is determined when the files are recorded.

- The elapsed playing time is not correct. This sometimes occurs during playback. This is caused by how the tracks are recorded on the disc.
- The correct characters are not displayed (e.g. This unit can only display letters (upper case), numbers, album name). and a limited number of symbols.
- The iPod does not turn on or does not work.
- Check the connecting cable and its connection.
- Update the firmware version.
- Charge the battery.
- The sound is distorted.

Deactivate the equalizer either on the unit or the iPod.

- "NO IPOD" appears on the display.
- Check the connecting cable and its connection.
- Charge the battery.
- Playback stops.

The headphones are disconnected during playback. Turn off the unit's power and turn it on again.

- No sound can be heard when connecting an iPod nano.
- Disconnect the headphones from the iPod nano.
- Update the firmware version of the iPod nano.
- "NO FILES" appears on the display.

No tracks are stored. Import tracks to the iPod.

- The iPod's controls do not work after disconnecting from this unit.
- "CANNOT PLAY" appears on the display. Communication error occurs.

Disconnect and connect the cable to the iPod again.

## Specifications

| AUDIO AMPLIFIER SECTION |  |  |  |
| :---: | :---: | :---: | :---: |
| Power Output: | 20 W RMS $\times 4$ Channels at $4 \Omega$ and $\leq 1 \%$ THD+N |  |  |
| Signal-to-Noise Ratio: | 80 dBA (reference: 1 W into $4 \Omega$ ) |  |  |
| Load Impedance: |  |  | $4 \Omega$ ( $4 \Omega$ to $8 \Omega$ allowance) |
| Tone Control Range: |  | Bass: | $\pm 12 \mathrm{~dB}(60 \mathrm{~Hz}, 80 \mathrm{~Hz}, 100 \mathrm{~Hz}, 120 \mathrm{~Hz})$ |
|  |  | Mid-range: | $\pm 12 \mathrm{~dB}(500 \mathrm{~Hz}, 1 \mathrm{kHz}, 1.5 \mathrm{kHz}, 2.5 \mathrm{kHz})$ |
|  |  | Treble: | $\pm 12 \mathrm{~dB}$ ( $7.5 \mathrm{kHz}, 10 \mathrm{kHz}, 12.5 \mathrm{kHz}, 15 \mathrm{kHz}$ ) |
|  |  | Q (Q-slope): | Q0.5 to Q2.0 |
| Frequency Response: |  |  | 40 Hz to 20000 Hz |
| Line-Out Level/Impedance: |  | KD-APD49: | $5.0 \mathrm{~V} / 20 \mathrm{k} \Omega$ load (full scale) |
|  |  | KD-PDR40: | $2.5 \mathrm{~V} / 20 \mathrm{k} \Omega$ load (full scale) |
| Subwoofer-Out Level/Impedance: |  | KD-APD49: | $5.0 \mathrm{~V} / 20 \mathrm{k} \Omega$ load (full scale) |
|  |  | KD-PDR40: | $2.5 \mathrm{~V} / 20 \mathrm{k} \Omega$ load (full scale) |
| Output Impedance: |  |  | $1 \mathrm{k} \Omega$ |
| Other Terminal: |  |  | AUX (auxiliary) input jack, iPod connector, Steering wheel remote input (only for KD-APD49) |

## TUNER SECTION

| Frequency Range: | FM: | with channel interval set to 100 kHz or 200 kHz | 87.5 MHz to 107.9 MHz |
| :---: | :---: | :---: | :---: |
|  |  | with channel interval set to 50 kHz | 87.5 MHz to 108.0 MHz |
|  | AM: | with channel interval set to 10 kHz | 530 kHz to 1710 kHz |
|  |  | with channel interval set to 9 kHz | 531 kHz to 1602 kHz |
| FM Tuner | Usable Sensitivity: |  | $11.3 \mathrm{dBf}(1.0 \mu \mathrm{~V} / 75 \mathrm{\Omega})$ |
|  | 50 dB Quieting Sensitivity: |  | $16.3 \mathrm{dBf}(1.8 \mu \mathrm{~V} / 75 \mathrm{\Omega})$ |
|  | Alternate Channel Selectivity ( 400 kHz ): |  | 65 dB |
|  | Frequency Response: |  | 40 Hz to 15000 Hz |
|  | Stereo Separation: |  | 35 dB |
| AM Tuner | Sensitivity: |  | $20 \mu \mathrm{~V}$ |
|  | Selectivity: |  | 35 dB |

CD PLAYER SECTION

| Type: |  | Compact disc player |
| :---: | :---: | :---: |
| Signal Detection System: |  | Non-contact optical pickup (semiconductor laser) |
| Number of Channels: |  | 2 channels (stereo) |
| Frequency Response: |  | 5 Hz to 20000 Hz |
| Dynamic Range: |  | 96 dB |
| Signal-to-Noise Ratio: |  | 98 dB |
| Wow and Flutter: |  | Less than measurable limit |
| MP3 Decoding Format: (MPEG1/2 Audio Layer 3) | Max. Bit Rate: | 320 kbps |
| WMA (Windows Media ${ }^{\circledR}$ Audio) Decoding Format: | Max. Bit Rate: | 320 kbps |

## GENERAL

| Power Requirement: | Operating Voltage: | DC 14.4 V (11 V to 16 V allowance) |
| :---: | :---: | :---: |
| Grounding System: |  | Negative ground |
| Allowable Operating Temperature: |  | $0^{\circ} \mathrm{C}$ to $+40^{\circ} \mathrm{C}\left(32^{\circ} \mathrm{F}\right.$ to $\left.104^{\circ} \mathrm{F}\right)$ |
| Dimensions ( $\mathrm{W} \times \mathrm{H} \times \mathrm{D}$ ): (approx.) | Installation Size: | $\begin{aligned} & 182 \mathrm{~mm} \times 52 \mathrm{~mm} \times 160 \mathrm{~mm} \\ & \left(7-3 / 16^{\prime \prime} \times 2-1 / 16^{\prime \prime} \times 6-5 / 16^{\prime \prime}\right) \end{aligned}$ |
|  | Panel Size: | $\begin{aligned} & 188 \mathrm{~mm} \times 58 \mathrm{~mm} \times 6 \mathrm{~mm} \\ & \left(7-7 / 16^{\prime \prime} \times 2-5 / 16^{\prime \prime} \times 1 / 4^{\prime \prime}\right) \end{aligned}$ |
| Mass: |  | 1.3 kg (2.9 lbs) (excluding accessories) |

## Design and specifications are subject to change without notice.

If a kit is necessary for your car, consult your telephone directory for the nearest car audio speciality shop.

- Microsoft and Windows Media are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- iPod is a trademark of Apple Inc., registered in the U.S. and other countries.


# Having TROUBLE with operation? Please reset your unit 

 Refer to page of How to reset your unit Still having trouble??USA ONLY

## Call 1-800-252-5722 http://www.jvc.com We can help you!


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KD-APD49/KD-PDR40
Installation/Connection Manual
Manual de instalación/conexión
Manuel d'installation/raccordement


## ENGLISH

This unit is designed to operate on 12 V DC, NEGATIVE ground electrical systems. If your vehicle does not have this system, a voltage inverter is required, which can be purchased at JVC car audio dealers.

## WARNINGS

To prevent short circuits, we recommend that you disconnect the battery's negative terminal and make all electrical connections before installing the unit
Be sure to ground this unit to the car's chassis again after installation.

## Notes:

Replace the fuse with one of the specified rating. If the fuse blows frequently, consult your JVC car audio dealer.

- It is recommended to connect speakers with a maximum powe of more than 50 W (both at the rear and at the front, with an impedance of $\mathbf{4 \Omega}$ to $\mathbf{8 \Omega}$ ). If the maximum power is less than 50 W change "AMP GAIN" setting to prevent the speakers from being damaged (see page 15 of the INSTRUCTIONS).
- To prevent short circuits, cover the terminals of the UNUSED leads with insulating tape.
- The heat sink becomes very hot after use. Be careful not to touch it when removing this unit.


Heat sink / Sumidero térmico / Dissipateur de chaleur

## PRECAUTIONS on power supply and speaker

## connections:

- DO NOT connect the speaker leads of the power cord to the car battery; otherwise, the unit will be seriously damaged. BEFORE connecting the speaker leads of the power cord to the speakers, check the speaker wiring in your car.


## PRECAUCIONES sobre las conexiones de la

 fuente de alimentación y de los altavoces:NO conecte los conductores de altavoz del cable de alimentación a la batería de automóvil, pues podrían producirse graves daños en la unidad.

- ANTES de conectar a los altavoces los conductores de altavoz del cable de alimentación, verifique el conexionado de altavoz de su automóvil.


## PRECAUTIONS sur l'alimentation et la

 connexion des enceintes:- NE CONNECTEZ PAS les fils d'enceintes du cordon d'alimentation à la batterie; sinon, l'appareil serait sérieusement endommagé.
- AVANT de connecter les fils d'enceintes du cordon d'alimentation aux enceintes, vérifiez le câblage des enceintes de votre voiture.



## Parts list for installation and connection

The following parts are provided for this unit. If any item is missing, consult your JVC car audio dealer immediately

## A B

Hard case/Control panel
Estuche duro/Panel de contro
Etui de transport/Panneau de commande

## Lista de piezas para instalación y conexión

Con esta unidad se suministran las siguientes piezas. Si hay algún emento faltante, consulte inmediatamente con su concesionario de JVC de equipos de audio para automóviles.

## Liste des pièces pour l'installation et raccordement

Les pièces suivantes sont fournies avec cet appareil. Si quelque chose manquait, consultez votre revendeur autoradio JVC immédiatement.
®
Direct connection cable for iPod Direct connection cable for iPod
Cable de conexión directa para iPod Cable de conexión directa para iPod
Câble de connexion directe pour iPod



Manchon
 Placa de guarnición Plaque d'assemblage


Power cord
Cordón de alimentación Cordon d'alimentation

(1)

Mounting bolt-M4×5 mm (M4×1/4");
$\mathrm{M} 5 \times 12.5 \mathrm{~mm}\left(\mathrm{M} 5 \times 1 / 2^{\prime \prime}\right)$
Perno de montaje-M4 $\times 5 \mathrm{~mm}(\mathrm{M} 4 \times 1 / 4$ pulgada)
$\mathrm{M} 5 \times 12,5 \mathrm{~mm}$ (M5 $\times 1 / 2$ pulgada)
Boulon de montage - M4 $\times 5 \mathrm{~mm}$ ( $M 4 \times 1 / 4$ pouces);
$M 5 \times 12,5 \mathrm{~mm}$ ( $M 5 \times 1 / 2$ pouces)
(J)

Rubber cushion Cojín de goma Amortisseur en caoutchouc

(M) Battery
Pila
Pile


## INSTALLATION (IN-DASH MOUNTING)

The following illustration shows a typical installation. If you have any questions or require information regarding installation kits, consul your JVC car audio dealer or a company supplying kits.
If you are not sure how to install this unit correctly, have it installed by a qualified technician.

## INSTALACION (MONTAJE EN EL TABLERO DE INSTRUMENTOS)

La siquiente ilustración muestra una instalación típica. Si tiene alguna pregunta o necesita información acerca de las herramientas para instalación, consulte con su concesionario de JVC de equipos de audio para automóviles o a una compañía que suministra tales herramientas. Si usted no está seguro de cómo instalar correctamente la unidad, hágala instalar por un técnico cualificado.

## INSTALLATION (MONTAGE DANS LE TABLEAU DE BORD)

L'illustration suivante est un exemple d'installation typique. Si vous avez des questions ou avez besoin d'information sur des kits d'installation, consulter votre revendeur d'autoradios JVC ou une compagnie d'approvisionnement.
Si lon n est pas sûr de pouvoir installer correctement cet appareil, le faire installer par un technicien qualifié.

1

## 2



## Removing the unit

Before removing the unit, release the rear section.

## Extracción de la unidad

Antes de extraer la unidad, libere la sección trasera.

Retrait de l'appareil
Avant de retirer l'appareil, libérer la section arrière.


## 2



## 3

Insert the two handles, then pull them as illustrated so that the unit can be removed. Inserte las dos manijas y, a continuación, extráigalas de la manera indicada en la ilustración para poder desmontar la unidad. Insérez les deux poignées, puis tirez de la façon illustrée de façon à retirer l'appareil.


When using the optional stay / Cuando emplea un soporte opcional / Lors de l'utilisation du hauban en option



Install the unit at an angle of less than $30^{\circ}$. Instale la unidad a un ángulo de menos de $30^{\circ}$ Installez l'appareil avec un angle de moins de 30

When installing the unit without using the sleeve / Instalación de la unidad sin utilizar la cubierta / Lors de l'installation de l'appareil scans utiliser de manchon
In a Toyota car for example, first remove the car radio and install the unit in its place.
En un automóvil Toyota, por ejemplo, en primer lugar desmonte el autorradio e instale la unidad en su lugar.
Dans une voiture Toyota, par exemple, retirez d'abord l'autoradio et installez l'appareil à sa place.
Flat head screws-M5 $\times 8 \mathrm{~mm}\left(\mathrm{M} 5 \times 3 / 8^{\prime \prime}\right)^{* 2}$
Tornillos de cabeza plana-M5 $\times 8 \mathrm{~mm}$ (M5 $\times 3 / 8$ pulgada) ${ }^{* 2}$
Vis à tête plate $-M 5 \times 8 \mathrm{~mm}(M 5 \times 3 / 8 \text { pouces })^{* 2}$


Note : When installing the unit on the mounting bracket, make sure to use the $8 \mathrm{~mm}\left(3 / 8^{\prime \prime}\right)$-long screws. If longer screws are used, they could damage the unit.
Nota : Cuando instala la unidad en la ménsula de montaje, asegúrese de utilizar los tornillos de 8 mm (3/8 pulgada) de longitud. Si se utilizan tornillos más largos, éstos pueden dañar la unidad.
Remarque : Lors de l'installation de l'appareil sur le support de montage, s'assurer d'utiliser des vis d'une longueur de 8 mm (3/8 pouces). Si des vis plus longues sont utilisées, elles peuvent endommager l'appareil.

[^3]*1 Al poner la unidad vertical, tenga cuidado de no dañar el fusible provisto en la parte posterior
*2 No suministrado con esta unidad.
*1 Lorsque vous mettez l'appareil à la verticale, faire attention de ne pas endommager le fusible situé sur l'arrière.
Non fourni avec cet appareil.

## ELECTRICAL CONNECTIONS

## A Typical connections / Conexiones tipicas / Raccordements typiques

Before connecting: Check the wiring in the vehicle carefully. Incorrect connection may cause serious damage to this unit. The leads of the power cord and those of the connector from the car body may be different in color.

1 Connect the colored leads of the power cord in the order specified in the illustration below.
2 Connect the antenna cord
3 Finally connect the wiring harness to the unit.

Antes de la conexión: Verifique atentamente el conexionado del vehículo. Una conexión incorrecta podría producir daños graves en la unidad.
Los cordones del cable de alimentación y los del conector procedentes de la carrocería del automóvil podrían ser de diferentes en color.

1 Conecte los conductores de color del cable de alimentación en el orden especificado en la ilustración de abajo.
2 Conecte el cable de antena.
3 Por último, conecte el cable de alimentación a la unidad.

Avant de commencer la connexion: Vérifiez attentivement le câblage du véhicule. Une connexion incorrecte peut endommager sérieusement l'appareil.
Le fil du cordon d'alimentation et ceux des connecteurs du châssis de la voiture peuvent être différents en couleur

1 Connectez les fils colorés du cordon d'alimentation dans l'ordre spécifié sur l'illustration ci-dessous.
2 Connectez le cordon d'antenne
3 Finalement, connectez le faisceau de fils à l'appareil.


B Connecting to the steering wheel remote controller (only for KD-APD49) / Conexión al control remoto del volante de dirección (sólo para KD-APD49) / Connexion de la télécommande de volant (seulement pour le KD-APD49)

If your car is equipped with the steering wheel remote controller, you can operate this unit using the controller. For connection, an exclusive remote adapter (not supplied) which matches your car is required. For details, consult the same car audio dealer as where the unit is purchased.

Si su automóvil está equipado con control remoto en el volante de dirección, podrá controlar este receptor utilizando el control remoto. Para la conexión, se requiere un adaptador remoto exclusivo (no suministrado) que sea adecuado para su automóvil. Para los detalles, consulte con el concesionario car audio donde compró el receptor.

Remote adapter *1 Adaptador para remoto exclusivo*1 Adaptateur pour télécommande spécialisé* ${ }^{* 1}$

Si votre voiture est équipée d'une télécommande de volant, vous pouvez commander cet autoradio en utilisant cette télécommande. our la connexion, vous avez besoin d' un adaptateur de télécommande spécialisé (non fourni) correspondant à votre voiture. Pour en savoir plus, consultez le revendeur autoradio où vous avez acheté votre autoradio.


[^4]*1 No suministrado con esta unidad.
*2 Antes de comprobar el funcionamiento de esta unidad previa a de la instalación, es necesario conectar este cable, de lo contrario no se podrá conectar la alimentación.
*1 Non fourni avec cet appareil.
*2 Pour vérifier le fonctionnement de cet appareil avant installation, ce fil doit être raccordé, sinon l'appareil ne peut pas être mis sous tension.

C Connecting the external amplifier or subwoofer / Conexión del amplificador o subwoofer exterior / Conexión del amplificador o subwoofer exterior


D Connecting an Apple iPod / Conexión del Apple iPod / Connexion d'un iPod Apple

You can connect an iPod to this unit using the supplied direct connection cable for iPod.

Puede conectar un iPod a esta unidad por medio del cable de conexión directa para iPod suministrado.

Vous pouvez connecter un iPod à cet appareil en utilisant le câble de connexion directe du iPod fourni.

Apple iPod (separately purchased) Apple iPod (adquirido separadamente) iPod Apple (vendu séparément)

## KD-APD49/KD-PDR40


iPod es una marca comercial de Apple Inc., registrada en los EE.UU. y otros países.

Direct connection cable for iPod (supplied) Cable de conexión directa para iPod (suministrado) Câble de connexion directe pour iPod (fourni)
iPod est une marque de commerce d'Apple Inc., enregistrée aux États-Unis et dans les autres pays.
iPod is a trademark of Apple Inc., registered in the U.S. and other countries.
${ }^{*} 3$ Remote lead
*4 Firmly attach the ground wire to the metallic body or to the chassis of the car-to the place uncoated with paint (if coated with paint, remove the paint before attaching the wire). Failure to do so may cause damage to the unit.

## TROUBLESHOOTING

## The fuse blows

* Are the red and black leads connected correctly?
- Power cannot be turned on.
* Is the yellow lead connected?
- No sound from the speakers.
* Is the speaker output lead short-circuited?


## - Sound is distorted.

* Is the speaker output lead grounded?
* Are the "-" terminals of L and R speakers grounded in common?
- Noise interfere with sounds.
* Is the rear ground terminal connected to the car's chassis using shorter and thicker cords?
- This unit becomes hot.
* Is the speaker output lead grounded?
* Are the "-" terminals of L and R speakers grounded in common?
- This unit does not work at all.
* Have you reset your unit?
*3 Cable remoto
*4 Fije firmemente el cable de tierra a la carrocería metálica o al chasis-a un lugar no cubierto con pintura (si está cubierto con pintura, quítela antes de fijar el cable). De lo contrario, se podrían producir daños en la unidad.


## LOCALIZACION DE AVERIAS

## El fusible se quema

* ¿Están los conductores rojo y negro correctamente conectados?
- No es posible conectar la alimentación.
* ¿Está el cable amarillo conectado?
- No sale sonido de los altavoces.
* ¿Está el cable de salida del altavoz cortocircuitado?


## - El sonido presenta distorsión.

* ¿Está el cable de salida del altavoz conectado a masa?
* ¿Están los terminales "-" de los altavoces Ly R conectados a una masa común?


## Perturbación de ruido.

* ¿El terminal de tierra trasero está conectado al chasis del automóv utilizando los cordones más corto y más grueso?


## Esta unidad se calienta.

* ¿Está el cable de salida del altavoz conectado a masa?
* ¿Están los terminales "-" de los altavoces Ly R conectados a una masa común?
*3 Fil d'alimentation à distance
*4 Attachez solidement le fil de mise à la masse au châssis métallique de la voiture-à un endroit qui n'est pas recouvert de peinture (s'il est recouvert de peinture, enlevez d'abord la peinture avant d'attacher le fil), L'appareil peut être endommagé si cela n'est pas fait correctement.


## JVC




For canceling the display demonstration, see page 6 .
ดูที่หน้า 6 เพื่อยกเลิกการสาธิตภาพประกอบ

For installation and connections, refer to the separate manual.
กรุณาดูคูมือที่แยกต่างหาก ในการติดตั้งและการเชื่อมต่อ

## ||V||/|///INSTRUCTIONS <br> คำแนะนำ

Thank you for purchasing a JVC product．
Please read all instructions carefully before operation，to ensure your complete understanding and to obtain the best

## IMPORTANT FOR LASER PRODUCTS

1．CLASS 1 LASER PRODUCT
2．CAUTION：Do not open the top cover．There are no user serviceable parts inside the unit；leave all servicing to qualified service personnel．
3．CAUTION：Visible and／or invisible class 1M laser radiation when open．Do not view directly with optical instruments．
4．REPRODUCTION OF LABEL：CAUTION LABEL，PLACED OUTSIDE THE UNIT．

| N | ATTENT | AVISO | VA |  | N |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ， | RAYONNEMENT LASER | RA | SY | ここを開くと可視 | VISIBLE AND／OR |
| CLASS | BLE ET／OU | DE | OS | 及び／または不可視 | INVISIBLE CLASS II |
| R RADIATION | INVISIBLE DE CLASSE | VISBLE Y／O INVISIBLE | LASERSTRÅLNING | のクラス1M | LASER RAD |
| HEN OPEN．DO NOT | 1M UNE FOIS OUVERT． | CUANDO ESTÁ | KLASS 1M，NÄR DENNA | レーザー放射 | HEN |
| DRECTLY WTT | NE PAS REGARDE | ABIERTO．NO N |  | 出ます。 | O NOT STAR |
| UMENTS． | DIRECTEMENT AVEC | TAMENTE |  | 光 | TO BEAM |
| 825－1：2001 | DES INSTRUMENTS | CON INSTRUMEN | STRALEN MED OPTISKA | 見ないでくださ | FDA 21 CFR |
| （ENG） | OPTIQUES．（FRA） | ÓPTICO．（ESP） | NSTRUMENT．（SWE） | N） | （ENG） |



## Warning：

If you need to operate the unit while driving，be sure to look around carefully or you may be involved in a traffic accident．

## Г Detaching the control panel



Attaching the control panel


## 「 How to reset your unit



- Your preset adjustments will also be erased.


## 「 How to forcibly eject a disc



- Be careful not to drop the disc when it ejects.
- If this does not work, reset your unit.

Ex.: When number button 2 works as
M0 (monaural) button.


## How to use the M MODE button

If you press M MODE, the unit goes into functions mode, then the number buttons and $\mathbf{\Delta} / \boldsymbol{\nabla}$ buttons work as different function buttons.

To use these buttons for their original functions again after pressing M MODE, press M MODE again. - Waiting for about 5 seconds without pressing any of these buttons will automatically cancels the functions mode.

## CONTENTS

Control panel ..... 4
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## For safety...

- Do not raise the volume level too much, as this will block outside sounds, making driving dangerous.
- Stop the car before performing any complicated operations.


## Temperature inside the car...

If you have parked the car for a long time in hot or cold weather, wait until the temperature in the car becomes normal before operating the unit.

## Control panel

## Parts identification

## Display window


$1 \boldsymbol{\Delta}$（up）／ $\boldsymbol{\nabla}$（down）buttons
$2 \boldsymbol{\Delta}$（eject）button
3 し／। ATT（standby／on attenuator）button
（4）Control dial
5 Remote sensor
DO NOT expose the remote sensor to strong light
（direct sunlight or artificial lighting）．
6 BAND button
7 Loading slot
8 Display window
9 EQ（equalizer）button
10 DISP（display）button
11 （control panel release）button
12 i（iPod）button
$131<4 \boldsymbol{V} \boldsymbol{1}$ 人 buttons
14 SRC（source）button
15 SEL（select）button
16 M MODE button
17 MO（monaural）button
18 SSM（Strong－station Sequential Memory）button

19 Number buttons
20 RPT（repeat）button
21 RND（random）button
22 AUX（auxiliary）input jack
23 Source display／Track number／Folder number／ Time countdown indicator
$24 \operatorname{Tr}$（track）indicator
25 DISC indicator
26 Playback mode／item indicators－RND（random）， －（disc），ᄃ（folder），RPT（repeat）
27 Tuner reception indicators－ST（stereo）， MO（monaural）
28 Sound mode（iEQ：intelligent equalizer）indicators —CLASSIC，HIP HOP，JAZZ，ROCK，POPS，USER
29 LOUD（loudness）indicator
30 EQ（equalizer）indicator
31 Disc information indicators－ TAG（Tag information），（folder），』（track／file）
（32）Main display

## Remote controller

Installing the lithium coin battery (CR2025)


Aim the remote controller directly at the remote sensor on the unit. Make sure there is no obstade in between.

## Warning:

- Do not install any battery other than CR2025 or its equivalent; otherwise, it may explode.
- Do not leave the remote controller in a place (such as the dashboard) exposed to direct sunlight for a long time; otherwise, it may explode.
- Store the battery in a place where children cannot reach to avoid the risk of accidents.
- To prevent the battery from over-heating, cracking, or starting a fire:
- Do not recharge, short, disassemble, heat the battery, or dispose of it in a fire.
- Do not leave the battery with other metallic materials.
- Do not poke the battery with tweezers or similar tools.
- Wrap the battery with tape and insulate when throwing away or saving it.


1 U/I/ATT (standby/on/attenuator) button

- Turns the power on if pressed briefly or attenuates the sound when the power is on.
- Turns the power off if pressed and held.
$2 \boldsymbol{\Delta} U($ up $) / D$ (down) $\boldsymbol{\nabla}$ buttons
- Changes the FM/AM bands with $\mathbf{\triangle} U$.
- Changes the preset stations with D $\mathbf{\nabla}$.
- Changes the folder of the MP3/WMA discs.
- While listening to an Apple iPod.
- Enters the main menu if pressed and held.
 selecting buttons.)
- While listening to an iPod (in menu selecting mode):
- Selects an item if pressed D $\nabla$ briefly. (Then, press and hold D $\boldsymbol{\nabla}$ to play back the selection directly.)
- Returns to the previous menu if pressed $\mathbf{\Delta} U$ briefly.
3 VOL - / VOL + buttons
- Adjusts the volume level.

4 SOUND button

- Selects the sound mode (iEQ: intelligent equalizer).
5 SOURCE button
- Selects the source.
$6<R$ (reverse) $/ F$ (forward) buttons
- Searches for stations if pressed briefly.
- Fast-forwards or reverses the track if pressed and held.
- Changes the track if pressed briefly.
- While listening to an iPod (in menu selecting mode):
- Accelerated file search: Hold $\boldsymbol{R} / \mathrm{F} \boldsymbol{t}$ to fast skip during song search in the main menu.


## Getting started

Basic operations
Turn on the power.


2

*1 You cannot select "CD" as the playback source if there is no disc in the unit.
*2 "NO IPOD" appears if an iPod is not connected.

## 3

For FM/AM tuner

(4) Adjust the volume.


## VOLUME 20

Volume level appears.
5 Adjust the sound as you want. (See pages 12 and 13.)

## Caution on volume setting:

Discs produce very little noise compared with other sources. Lower the volume before playing a disc to avoid damaging the speakers by the sudden increase of the output level.

| To drop the volume in a <br> moment (ATT) <br> To restore the sound, press <br> the button again. |  |
| :--- | :--- |
| To turn off the power | ATT |
|  | ATT |

## Basic settings

- See also "General settings - PSM" on pages 14 and 15.

1


2


1 Canceling the display demonstrations Select "DEMO," then "DEMO OFF."
2 Setting the clock
Select "CLOCK HOUR," then adjust the hour. Select "CLOCK MIN" (minute), then adjust the minute.

3 Finish the procedure.


To check the current clock time while the power is turned off


## Radio operations

## 1



2


Lights up when receiving an FM stereo broadcast with sufficient signal strength.
88.30MHz

## (3) Start searching for a station.



When a station is received, searching stops. To stop searching, press the same button again.

## To tune in to a station manually

 In step (3) above...1


2 Select a desired station frequency.


When an FM stereo broadcast is hard to receive


Lights up when monaural mode is activated.
(MO)
MONO
Reception improves, but the stereo effect will be lost.

To restore the stereo effect, repeat the same procedure. "MONO OFF" appears and the MO indicator goes off.

## Storing stations in memory

You can preset six stations for each band.

## FM station automatic presettingSSM (Strong-station Sequential Memory)

1 Select the FM band (FM1 - FM3) you want to store into.


2


3

"SSM" flashes, then disappears when automatic presetting is over.

Local FM stations with the strongest signals are searched and stored automatically in the FM band.

## Manual presetting

Ex.: Storing the FM station of 92.50 MHz into preset number 4 of the FM1 band.

1


2


### 92.50 MHz

3


Preset number flashes for a while.

## Listening to a preset station

1


2 Select the preset station (1-6) you want.


To check other information while listening to the radio


[^5]
## Disc operations

## Playing a disc in the unit

All tracks will be played repeatedly until you change the source or eject the disc.


To stop play and eject the disc


| [Hold]To fast-forward or reverse the <br> track |
| :--- | :--- | :--- |
| [Press]To go to the next or previous <br> track |
| To go to the next or previous <br> folder (only for MP3 or WMA <br> discs) |

To locate a particular track (for CD) or folder (for MP3 or WMA discs) directly
To select a number from $01-06$ :


To select a number from $07-12$ :


- To use direct folder access on MP3/WMA discs, it is required that folders are assigned with 2-digit numbers at the beginning of their folder names$01,02,03$, and so on.

To select a particular track in a folder (for MP3 or WMA discs):


## Other main functions

## Skipping tracks quickly during play

- For MP3 or WMA discs, you can skip tracks within the same folder.
Ex.: To select track 32 while playing a track whose number is a single digit (1 to 9)

1
mode


2


Each time you press the button, you can skip 10 tracks.

- After the last track, the first track will be selected and vice versa.

3


## Prohibiting disc ejection

You can lock a disc in the loading slot.

"EJECT LOCK" flashes on the display.
To cancel the prohibition, repeat the same procedure.

Changing the display information


## While playing an audio CD or CD Text

A $\rightarrow$ B $\rightarrow$ Disc title/performer*1 $\rightarrow$ Track title ${ }^{* 1}$ [』] $\rightarrow$ (back to the beginning)

While playing an MP3 or a WMA track

- When "TAG DISPLAY" is set to "TAG ON" (see page 15)
$A \rightarrow B \rightarrow$ Album name/performer (folder name ${ }^{* 2}$ ) $[$ TAG $\square] \rightarrow$ Track title (file name ${ }^{* 2}$ ) [TAG 月] $\rightarrow$ (back to the beginning)
- When "TAG DISPLAY" is set to "TAG OFF"
$A \rightarrow B \rightarrow$ Folder name $[\sigma]$ File name [ر] $\rightarrow$ (back to the beginning)

A : Current track number with the elapsed playing time
B : Current track number with the clock time
[ ] : Corresponding indicator lights up on the display.
*1 If the current disc is an audio CD, "NO NAME" appears.
*2 If an MP3/WMA file does not have Tag information, folder name and file name appear. In this case, the TAG indicator will not light up.

## Selecting the playback modes

You can use only one of the following playback modes at a time.

1
mode
$M$

2 Select your desired playback mode.

| - Repeat play | lay |
| :---: | :---: |
| Mode P | Plays repeatedly |
| TRACK RPT : T FOLDER RPT*: | : The current track. [RPT] <br> : All tracks of the current folder. $[\tau R P T]$ |
| RPT OFF : | : Cancels. |
| - Random play | play ${ }^{12 \text { RND }}$ |
| Mode $\quad$ P | Plays at random |
| FOLDER RND*: | All tracks of the current folder, then the tracks of the next folder and so on. [RND $ూ$ ] |
| ALL RND : Al | All tracks of the current disc. [RND®] |
| RND OFF : | : Cancels. |

* Only while playing an MP3 or a WMA disc.
[ ] : Corresponding indicator lights up on the display.


## iPod operations

You can play songs in an Apple iPod by connecting it with the supplied direct connection cable for iPod. You can control playback from the unit or from your iPod.

- Disconnecting the iPod will stop playback. Press SRC to listen to another playback source.


## Caution:

- Avoid using the iPod if it might hinder your safety while driving.
- Make sure all important data has been backed up to avoid losing the data.
- For connection, see the Installation/Connection Manual (separate volume).
- For details, refer also to the manual supplied for your iPod.


## (1) Connect an iPod.



If an iPod has been connected...
 To directly select "IPOD" as the source while listening to another source or when the power is turned off.

Playback starts automatically from where it had been paused previously.

## (2) Adjust the volume.


(3) Adjust the sound as you want. (See pages 12 and 13.)

To control playback from your iPod "IPOD MODE" appears on the display.

- Press and hold this button again to control playback from the unit. "HEAD MODE" appears on the display.


## Playback control from the unit

| [Press] Go to the next or previous |
| :--- | :--- | :--- |
| track |

Selecting a track from the menu
1 Enter the main menu.


Now the $\mathbf{\Delta} / \boldsymbol{\nabla} / 1<\boldsymbol{V} / \rightarrow$ 人 $/$ number buttons work as the menu selecting buttons.

## 2 Select the desired menu.



PLAYLIST $\leftrightarrow$ ARTIST $\leftrightarrow$ ALBUM $\leftrightarrow$ SONG $\leftrightarrow$ PODCAST $\leftrightarrow$ GENRE $\leftrightarrow$ COMPOSER $\leftrightarrow$ AUDIOBOOK $\leftrightarrow$ (back to the beginning)

- Pressing the number buttons can directly select the desired menu (see the left column for details).


## 3 Confirm the selection.



To move back to the previous menu, press $\mathbf{\Delta}$.

- Holding the button will start play back the selected item directly.
- If a track is selected, playback starts automatically.
- If the selected item has another layer, you will enter the layer. Repeat steps $\mathbf{2}$ and $\mathbf{3}$ until the desired track is played.
- Accelerated file search: Hold
 to fast skip during song search in the main menu.


## To exit from menu selecting mode



* The menu selecting mode will be canceled:
- If no operations are performed for about 10 seconds.
- When you confirm the selection of a track.
- Pressing some other buttons such as DISP, SEL, MODE, or EQ.


## Selecting the playback modes

1


2 Select your desired playback mode.

| - Repeat play | play |
| :---: | :---: |
| Mode Pla | Playback functions (as on iPod) |
| ONE RPT : Same as "Repeat One." [ $R P T$ ] |  |
| ALL RPT : Same as "Repeat All. |  |
| RPT OFF : Cancels. |  |
| - Random pla | play 6 |
| Mode | Playback functions (as on iPod) |
| SONG RND : Same as "Shuffle Songs." [RND] |  |
| ALBUM RND*: Same as "Shuffle Albums." [RNDET] |  |
| RND OFF | Cancels. |
| * Functions only ifyou select "ALL" in "ALBUMS" of the main menu |  |
| [ ] : Correspond display. | ponding indicator lights up on the y. |

To check other information while listening to an iPod


Current track number with the elapsed playing time $\rightarrow$ Current track number with the clock time $\rightarrow$ Track title* $\rightarrow$ Album name/ performer* $\rightarrow$ (back to the beginning)

* When "TAG DISPLAY" is set to "TAG OFF," file name and folder name appear.


## Sound adjustments

You can select a preset sound mode suitable to the music genre (iEQ: intelligent equalizer).


## Adjusting the sound

You can adjust the sound characteristics to your preference.

- The adjustment you make will be stored for the currently selected sound mode (iEQ) including "USER."

1


## 2



Indication, [Range]
FADER*2, [R06 to F06]
Adjust the front and rear speaker balance.
BALANCE*3, [L06 to R06]
Adjust the left and right speaker balance.

## Indication, [Range]

LOUD*4 (loudness), [LOUD ON or LOUD OFF]
Boost low and high frequencies to produce a well-balanced sound at a low volume level.

SUBWOOFER ${ }^{* 1}$, [00 to 08, initial: 04]
Adjust the subwoofer output level.
VOL ADJ (volume adjust), [ -05 to +05 , initial: 00] Adjust the volume level of each source (except FM), in relation to the FM volume level. The volume level will automatically increase or decrease when you change the source.

- Before making an adjustment, select the source you want to adjust.

VOLUME, [00 to 50 or 00 to 30]*5
Adjust the volume.
*1 Displayed only when "L/O MODE" is set to "SUB.W" (seepage 15).
*2 If you are using a two-speaker system, set the fader level to "00."
*3 This adjustment will not affect the subwoofer output.
*4 The adjustment made (LOUD ON/LOUD OFF) will be applied to all sound modes.
*5 Depending on the amplifier gain control setting. (See page 15 for details.)

## Storing your own sound mode

You can adjust the sound modes and store your own adjustments in memory.

## 1 Select a sound mode.



## 2 Enter the adjustment mode.



- If no operation is done within 5 seconds, this mode is canceled.

3 Select a sound characteristic.


4 Adjust the sound elements of the selected sound characteristic.
1 Adjust the frequency.


2 Adjust the level.


3 Adjust the quality slope (Q).


| Sound <br> elements | Range/selectable items |  |  |
| :--- | :--- | :--- | :--- |
|  | BASS | MID | TRE |
| Frequency | 60 Hz | 500 Hz | 7.5 kHz |
|  | 80 Hz | 1.0 kHz | 10.0 kHz |
|  | 100 Hz | 1.5 kHz | 12.5 kHz |
|  | 120 Hz | 2.5 kHz | 15.0 kHz |
| Level | -06 to | -06 to | -06 to |
|  | +06 | +06 | +06 |
| Q (Q-slope) | $Q 0.5$ | Q0.75 | Q0.75 |
|  | $Q 1.0$ | $Q 1.0$ | Q1.25 |
|  | $Q 1.5$ | $Q 1.25$ |  |
|  | Q2.0 | Q1.5 |  |

BASS: Bass MID: Mid-range TRE: Treble

## 5 The adjustment made will be stored

 automatically. Repeat steps 3 and 4 to adjust other sound characteristics.
## General settings - PSM

You can change PSM (Preferred Setting Mode) items
listed in the table below and on page 15.
1


2 select a PSM item.


## 3 Adjust the PSM item selected.



## 4 Repeat steps 2 and 3 to adjust other PSM items if necessary.

## 5 Finish the procedure.



| Indications | Item (___: Initial) | Setting, [reference page] |
| :---: | :---: | :---: |
| DEMO <br> Display demonstration | - DEMO ON <br> - DEMO OFF | The display demonstration will be activated automatically if no operation is done for about 20 seconds, [6]. <br> : Cancels. |
| CLOCK DISP** <br> Clock display | - CLOCK ON <br> - CLOCK OFF | : The clock time is shown on the display at all times when the power is turned off. <br> : Cancels; pressing DISP will show the clock time for about 5 seconds when the power is turned off, [6]. |
| CLOCK HOUR <br> Hour adjustment | 1-12 | [Initial: 1 (1:00)], [6]. |
| CLOCK MIN <br> Minute adjustment | 00-59 | [Initial: 00 (1:00)], [6]. |
| DIMMER <br> Dimmer | $\begin{aligned} & \cdot \mathrm{ON} \\ & \cdot \mathrm{OFF} \end{aligned}$ | : Dims the display and button illumination. <br> : Cancels. |

*1 If the power supply is not interrupted by turning off the ignition key of your car, it is recommended that you select "CLOCK OFF" to save the car's battery.

| Indications | Item $\qquad$ _ Initial) | Setting, [reference page] |
| :---: | :---: | :---: |
| AUDIOB00KS*2 <br> Speed control of "Audiobook" | - NORMAL <br> - FASTER <br> - SLOWER | : You can select the playback speed of the "Audiobook" sound file in your iPod. |
| SCROLL*3 <br> Scroll | $\begin{aligned} & \text { - ONCE } \\ & \text { - AUTO } \\ & \text { - OFF } \end{aligned}$ | : Scrolls the displayed information once. <br> : Repeats scrolling (at 5-second intervals). <br> : Cancels. <br> - Pressing DISP for more than one second can scroll the display regardless of the setting. |
| L/O MODE <br> Line output mode | - REAR <br> - SUB.W | : Select if the REAR LINE OUT terminals are used for connecting the speakers (through an external amplifier). <br> : Select if the REAR LINE OUT terminals are used for connecting a subwoofer (through an external amplifier). |
| SUB.W FREQ*4 <br> Subwoofer cutoff frequency | - LOW <br> - MID <br> - HIGH | : Frequencies lower than 90 Hz are sent to the subwoofer. <br> : Frequencies lower than 135 Hz are sent to the subwoofer. <br> : Frequencies lower than 180 Hz are sent to the subwoofer. |
| TAG DISPLAY <br> Tag display | - TAGON <br> - TAG OFF | : Shows the Tag information while playing MP3/WMA tracks, [9]. <br> : Cancels. |
| AMP GAIN <br> Amplifier gain control | - LOW POWER <br> - HIGH POWER | : VOLUME 00 - VOLUME 30. (Select this if the maximum power of the speaker is less than 50 W to avoid damaging the speaker.) <br> : VOLUME 00 - VOLUME 50. |
| IF BAND Intermediate frequency band | - AUTO <br> - WIDE | : Increases the tuner selectivity to reduce interference noise between close stations. (The stereo effect may be lost.) <br> : Subject to interference noise from adjacent stations, but the sound quality will not be degraded and the stereo effect will remain. |

[^6]
## Other external component operations

You can connect an external component to the AUX (auxiliary) input jack on the control panel.

3.5 mm stereo mini plug (not supplied)


2
Turn on the connected component and start playing the source.

3 Adjust the volume.

(4) Adjust the sound as you want. (See pages 12 and 13.)

To check other information while listening to an external component


## Ititle assignment

You can assign names to 30 station frequencies (FM and AM) and up to 8 characters for each station name.

1 Select FM/AM.


2 Show the title entry screen.


3 Assign a title.
1 Select a character.


2 Move to the next (or previous) character position.


3 Repeat steps 1 and 2 until you finish entering the title.

4 Finish the procedure.


To erase the entire title
In step 2 above...


## Maintenance

## How to clean the connectors

Frequent detachment will deteriorate the connectors. To minimize this possibility, periodically wipe the connectors with a cotton swab or cloth moistened with alcohol, being careful not to damage the connectors.


## Moisture condensation

Moisture may condense on the lens inside the unit in the following cases:

- After starting the heater in the car.
- If it becomes very humid inside the car.

Should this occur, the unit may malfunction. In this case, eject the disc and leave the unit turned on for a few hours until the moisture has evaporated.

## How to handle discs

When removing a disc from its case, press down the center holder of the case and lift the disc out, holding it by the edges.

- Always hold the disc by the edges. Do not touch its recording surface.


When storing a disc in its case, gently insert the disc around the center holder (with the printed surface facing up).

- Make sure to store discs in cases after use


## To keep discs clean

A dirty disc may not play correctly. If a disc does become dirty, wipe it with a soft cloth in a straight line from center to edge.

- Do not use any solvents (for example, conventional record cleaner, spray, thinner, benzine, etc.) to clean discs..


## To play new discs

New discs may have some rough spots around the inner and outer edges. If such a disc is used, this unit may reject the disc.


To remove these rough spots, rub the edges with a pencil or ball-point pen, etc.

## Do not use the following discs:

Single CD (8 cm disc)


Sticker and sticker residue
 Stick-on label Unusual shape


## More about this unit

## Basic operations

## Turning on the power

- By pressing SRC (source) or i (iPod) button on the unit, you can also turn on the power. If the source is ready, playback also starts.


## Turning off the power

- If you turn off the power while listening to a track, playback will start from where it had been stopped previously next time you turn on the power.


## General

- If you change the source while listening to a disc or an iPod, playback stops.
Next time you select "CD" or "IPOD" as the playback source, playback will start from where it had been stopped/paused previously.

Continued on the next page

- After ejecting a disc or disconnecting an iPod, "NO DISC" or "NO IPOD" appears and you cannot operate some of the buttons. Insert another disc, connect an iPod, or press SRC to select another playback source.


## Tuner operations

## Storing stations in memory

- During SSM search...
- All previously stored stations are erased and the stations are stored anew.
- Received stations are preset in №. 1 (lowest frequency) to №. 6 (highest frequency).
- When SSM is over, the station stored in №. 1 will be automatically tuned in.
- When storing a station manually, the previously preset station is erased when a new station is stored in the same preset number.


## Disc operations

## Caution for DualDisc playback

- The Non-DVD side of a "DualDisc" does not comply with the "Compact Disc Digital Audio" standard. Therefore, the use of Non-DVD side of a DualDisc on this product may not be recommended.


## General

- This unit has been designed to reproduce CDs/CD Texts, and CD-Rs (Recordable)/CD-RWs (Rewritable) in audio CD (CD-DA), MP3 and WMA formats.
- When a disc is inserted upside down, "PLEASE" and "EJECT" appear alternately on the display. Press $\boldsymbol{\Delta}$ to eject the disc.
- MP3 and WMA "tracks" (words "file" and "track" are used interchangeably) are recorded in "folders."
- While fast-forwarding or reversing on an MP3 or WMA disc, you can only hear intermittent sounds.


## Playing a CD-R or CD-RW

- Use only "finalized" CD-Rs or CD-RWs.
- This unit can only play back files of the same type as those which are detected first if a disc includes both audio CD (CD-DA) files and MP3/WMA files.
- This unit can play back multi-session discs; however, unclosed sessions will be skipped while playing.
- Some CD-Rs or CD-RWs may not play back on this unit because of their disc characteristics, or for the following reasons:
- Discs are dirty or scratched.
- Moisture condensation has occurred on the lens inside the unit.
- The pickup lens inside the unit is dirty.
- The files on the CD-R/CD-RW are written using the "Packet Write" method.
- There are improper recording conditions (missing data, etc.) or media conditions (stained, scratched, warped, etc.).
- (D-RWs may require a longer readout time since the reflectance of CD-RWs is lower than that of regular CDs.
- Do not use the following CD-Rs or CD-RWs:
- Discs with stickers, labels, or a protective seal stuck to the surface.
- Discs on which labels can be directly printed by an ink jet printer.
Using these discs under high temperature or high humidity may cause malfunctions or damage to the unit.


## Playing an MP3/WMA disc

- This unit can play back MP3/WMA files with the extension code <.mp3> or <.wma> (regardless of the letter case-upper/lower).
- This unit can show the names of albums, artists (performer), and Tag (Version 1.0, 1.1, 2.2, 2.3, or 2.4) for MP3 files and for WMA files.
- This unit can display only one-byte characters. No other characters can be correctly displayed.
- This unit can play back MP3/WMA files meeting the conditions below:
- Bit rate: 8 kbps — 320 kbps
- Sampling frequency:
$48 \mathrm{kHz}, 44.1 \mathrm{kHz}, 32 \mathrm{kHz}$ (for MPEG-1)
24 kHz, 22.05 kHz, 16 kHz (for MPEG-2)
- Disc format: ISO 9660 Level 1/Level 2, Romeo, Joliet, Windows long file name
- The maximum number of characters for file/folder names vary depending on the disc format used (includes 4 extension characters-<.mp3> or <.wma>).
- ISO 9660 Level 1: up to 12 characters
- ISO 9660 Level 2: up to 31 characters
- Romeo: up to 128 characters
- Joliet: up to 64 characters
- Windows long file name: up to 128 characters
- This unit can recognize a total of 512 files, 255 folders, and 8 hierarchical levels.
- This unit can play back files recorded in VBR (variable bit rate).
Files recorded in VBR have a discrepancy in the elapsed time display, and do not show the actual elapsed time. In particular, this difference becomes noticeable after performing the search function.
- This unit cannot play back the following files:
- MP3 files encoded in MP3i and MP3 PRO format.
- MP3 files encoded in an inappropriate format.
- MP3 files encoded with Layer 1/2.
- WMA files encoded in lossless, professional, and voice format.
- WMA files which are not based upon Windows Media ${ }^{\oplus}$ Audio.
- WMA files copy-protected with DRM.
- Files which have data such as AIFF, ATRAC3, etc.
- The search function works but search speed is not constant.


## Ejecting a disc

- If the ejected disc is not removed within 15 seconds, it is automatically inserted into the loading slot again to protect it from dust. Playback starts automatically.


## iPod operations

- Controllable iPod:
- iPod mini
- iPod G4
- iPod photo
- iPod nano (1st \& 2nd Generation)
- iPod with video (5th Generation)
- Update your iPod to the latest software version before using it with this unit.
- When you turn on this unit, the iPod is charged through this unit.
- While connecting an iPod with Video:
- No video shows on the iPod's display or the external monitor (only the audio part is available).
- It is not possible to browse video files on the "Video" menu. (If you connect the iPod during the playback or pausing of a video file, resuming playback will not work.)
- iPod shuffle cannot be used with this unit.
- You can control the iPod from this unit when "JVC" or " $\sqrt{ }$ " appears on the iPod display after connection.
- The song order displayed on the selection menu of this unit may differ from that of the iPod.
- If playback is stopped, select a track from the selection menu or press BAND to playback the same track again.
- The text information may not be displayed correctly:
- Some characters such as accented letters cannot be shown correctly on the display.
- Communication between the iPod and the unit is not stable.
- If the text information includes more than 11 characters, it scrolls on the display. This unit can display up to 64 characters.


## Notice:

When operating an iPod, some operations may not be performed correctly or as intended. In this case, visit the following JVC web site:
[http://www.jvc-victor.co.jp/english/car/](http://www.jvc-victor.co.jp/english/car/)

## General settings—PSM

- If you change the "AMP GAIN" setting from "HIGH POWER" to "LOW POWER" while the volume level is set higher than "VOLUME 30," the unit automatically changes the volume level to "VOLUME 30."

Preset value setting for each sound mode

| Sound mode | Preset value |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | BASS (bass) |  |  | MID (mid-range) |  |  | TRE (treble) |  |  | $\begin{aligned} & \text { LOUD } \\ & \text { (loudness) } \end{aligned}$ |
|  | Freq. | Level | Q | Freq. | Level | Q | Freq. | Level | Q |  |
| USER | 60 Hz | 00 | Q1.0 | 1.0 kHz | 00 | Q1.25 | 7.5 kHz | 00 | Q1.25 | OFF |
| ROCK | 100 Hz | +03 | 01.0 | 1.0 kHz | 00 | Q1.25 | 10.0 kHz | +02 | Q1.25 |  |
| CLASSIC | 80 Hz | +01 | Q1.0 | 1.0 kHz | 00 | Q1.25 | 10.0 kHz | +03 | Q1.25 |  |
| POP | 100 Hz | +02 | Q1.0 | 1.0 kHz | +01 | Q1.25 | 10.0 kHz | +02 | Q1.25 |  |
| HIP HOP | 60 Hz | +04 | Q1.0 | 1.0 kHz | -02 | Q1.0 | 10.0 kHz | +01 | Q1.25 |  |
| Jazz | 80 Hz | +03 | 01.0 | 1.0 kHz | 00 | Q1.25 | 10.0 kHz | +03 | Q1.25 |  |

Freq.: Frequency $\mathrm{Q}: \mathrm{Q}$-slope

## Troubleshooting

What appears to be trouble is not always serious. Check the following points before calling a service center.

| Symptoms |  | Remedies/Causes <br> - Adjust the volume to the optimum level. <br> - Check the cords and connections. |
| :---: | :---: | :---: |
| 등 | - Sound cannot be heard from the speakers. |  |
| $\bigcirc$ | - The unit does not work at all. | Reset the unit (see page 3). |
| $\sum$ | - SSM automatic presetting does not work. | Store stations manually. |
| $\sum_{4}$ | - Static noise while listening to the radio. | Connect the antenna firmly. |
|  | - Disc cannot be played back. | Insert the disc correctly. |
|  | - CD-R/CD-RW cannot be played back. <br> - Tracks on the CD-R/CD-RW cannot be skipped. | - Insert a finalized CD-R/CD-RW. <br> - Finalize the CD-R/CD-RW with the component which you used for recording. |
|  | - Disc can neither be played back nor ejected. | - Unlock the disc (see page 9). <br> - Eject the disc forcibly (see page 3). |
|  | - Disc sound is sometimes interrupted. | - Stop playback while driving on rough roads. <br> - Change the disc. <br> - Check the cords and connections. |
|  | - "NO DISC" appears on the display. <br> - "PLEASE" and "EJECT" appear alternately on the display. | Insert a playable disc into the loading slot. |

## Symptoms

Remedies/Causes

|  | - Disc cannot be played back. | - Use a disc with MP3/WMA tracks recorded in a format compliant with ISO 9660 Level 1, Level 2, Romeo, or Joliet. <br> - Add the extension code <.mp3> or <.wma> to the file names. |
| :---: | :---: | :---: |
|  | - Noise is generated. | Skip to another track or change the disc. (Do not add the extension code <.mp3> or <.wma> to non-MP3 or WMA tracks.) |
|  | - A longer readout time is required ("READING" keeps flashing on the display). | Do not use too many hierarchical levels and folders. |
|  | - Tracks do not play back in the order you have intended them to play. | The playback order is determined when the files are recorded. |
|  | - The elapsed playing time is not correct. | This sometimes occurs during playback. This is caused by how the tracks are recorded on the disc. |
|  | - The correct characters are not displayed (e.g. album name). | This unit can only display letters (upper case), numbers, and a limited number of symbols. |
|  | - The iPod does not turn on or does not work. | - Check the connecting cable and its connection. <br> - Update the firmware version. <br> - Charge the battery. |
|  | - The sound is distorted. | Deactivate the equalizer either on the unit or the iPod. |
|  | - "NO IPOD" appears on the display. | - Check the connecting cable and its connection. <br> - Charge the battery. |
|  | - Playback stops. | The headphones are disconnected during playback. Turn off the unit's power and turn it on again. |
|  | - No sound can be heard when connecting an iPod nano. | - Disconnect the headphones from the iPod nano. <br> - Update the firmware version of the iPod nano. |
|  | - "N0 FILES" appears on the display. | No tracks are stored. Import tracks to the iPod. |
|  | - The iPod's controls do not work after disconnecting from this unit. | Reset the iPod. |
|  | - "CANNOT PLAY" appears on the display. | Communication error occurs. <br> Disconnect and connect the cable to the iPod again. |

- Microsoft and Windows Media are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- iPod is a trademark of Apple Inc., registered in the U.S. and other countries.

Specifications

| AUDIO AMPLIFIER SECTION |  |  |
| :---: | :---: | :---: |
| Maximum Power Output: | Front/Rear: | 50 W per channel |
| Continuous Power Output (RMS): | Front/Rear: | 19 W per channel into $4 \Omega, 40 \mathrm{~Hz}$ to 20000 Hz at no more than $0.8 \%$ total harmonic distortion. |
| Load Impedance: |  | $4 \Omega$ ( $4 \Omega$ to $8 \Omega$ allowance) |
| Tone Control Range: | Bass: | $\pm 12 \mathrm{~dB}(60 \mathrm{~Hz}, 80 \mathrm{~Hz}, 100 \mathrm{~Hz}, 120 \mathrm{~Hz})$ |
|  | Mid-range: | $\pm 12 \mathrm{~dB}(500 \mathrm{~Hz}, 1 \mathrm{kHz}, 1.5 \mathrm{kHz}, 2.5 \mathrm{kHz})$ |
|  | Treble: | $\pm 12 \mathrm{~dB}$ ( $7.5 \mathrm{kHz}, 10 \mathrm{kHz}, 12.5 \mathrm{kHz}, 15 \mathrm{kHz}$ ) |
|  | Q (Q-slope): | Q0.5 to Q2.0 |
| Frequency Response: |  | 40 Hz to 20000 Hz |
| Signal-to-Noise Ratio: |  | 70 dB |
| Line-Out Level/Impedance: |  | $2.5 \mathrm{~V} / 20 \mathrm{k} \Omega$ load (full scale) |
| Subwoofer-Out Level/Impedance: |  | $2.5 \mathrm{~V} / 20 \mathrm{k} \Omega$ load (full scale) |
| Output Impedance: |  | $1 \mathrm{k} \Omega$ |
| Other Terminal: |  | AUX (auxiliary) input jack, iPod connector |


| TUNER SECTION |  |  |  |
| :--- | :--- | :--- | :---: |
| Frequency Range: | FM: | 87.5 MHz to 108.0 MHz |  |
|  | AM: | 531 kHz to 1602 kHz |  |
| FM Tuner | Usable Sensitivity: | $11.3 \mathrm{dBf}(1.0 \mu \mathrm{~V} / 75 \Omega)$ |  |
|  | 50 dB Quieting Sensitivity: | $16.3 \mathrm{dBf}(1.8 \mu \mathrm{~V} / 75 \Omega)$ |  |
|  | Alternate Channel Selectivity $(400 \mathrm{kHz}):$ | 65 dB |  |
|  | Frequency Response: | 40 Hz to 15000 Hz |  |
|  | Stereo Separation: | 30 dB |  |
| AM Tuner | Sensitivity: | $20 \mu \mathrm{~V}$ |  |
|  | Selectivity: | 35 dB |  |


| CD PLAYER SECTION |  |
| :--- | :--- |
| Type: | Compact disc player |
| Signal Detection System: | Non-contact optical pickup <br> (semiconductor laser) |
| Number of Channels: | 2 channels (stereo) |
| Frequency Response: | 5 Hz to 20000 Hz |
| Dynamic Range: | 96 dB |
| Signal-to-Noise Ratio: | 98 dB |
| Wow and Flutter: | Max. Bit Rate: |
| MP3 Decoding Format: <br> (MPEG1/2 Audio Layer 3) | 320 kbps |
| WMA (Windows Media |  |
| Decoding Format: |  |$\quad$ Max. Bit Rate: $\quad 320$ kbps | Leasurable limit |
| :--- |

## GENERAL

| Power Requirement: | Operating Voltage: | DC $14.4 \mathrm{~V}(11 \mathrm{~V}$ to 16 V allowance) |
| :--- | :--- | :--- |
| Grounding System: | Negative ground |  |
| Allowable Operating Temperature: | $0^{\circ} \mathrm{C}$ to $+40^{\circ} \mathrm{C}$ |  |
| Dimensions (W $\times \mathrm{H} \times \mathrm{D}$ ): (approx.) | Installation Size: | $182 \mathrm{~mm} \times 52 \mathrm{~mm} \times 160 \mathrm{~mm}$ |
|  | Panel Size: | $188 \mathrm{~mm} \times 58 \mathrm{~mm} \times 6 \mathrm{~mm}$ |
| Mass: | 1.3 kg (excluding accessories) |  |

Design and specifications are subject to change without notice.

# Having TROUBLE with operation? Please reset your unit 

Refer to page of How to reset your unit

หากมีปัญหาในการใช้งาน กรุณากดปุ่มตั้งคาเริ่มต้นใหม่ กรุณาดูหน้วิวีธั้งค่าเครื่องใหม่

JVC

# JV <br> KD-PDR45 <br> Installation/Connection Manual การติดตั้ง/คู่มือการติดตั้ง 

## ENGLISH

This unit is designed to operate on $\mathbf{1 2}$ V DC, NEGATIVE ground electrical systems. If your vehicle does not have this system, a voltage inverter is required, which can be purchased at JVC car audio dealers.

## WARNINGS

To prevent short circuits, we recommend that you disconnect the battery's negative terminal and make all electrical connections before installing the unit.

- Be sure to ground this unit to the car's chassis again after installation.

Notes:

- Replace the fuse with one of the specified rating. If the fuse blows frequently, consult your JVC car audio dealer.
- It is recommended to connect speakers with a maximum power of more than 50 W (both at the rear and at the front, with an impedance of $\mathbf{4 \Omega}$ to $\mathbf{8 \Omega}$ ). If the maximum power is less than 50 W , change "AMP GAIN" setting to prevent the speakers from being damaged (see page 15 of the INSTRUCTIONS).
- To prevent short circuits, cover the terminals of the UNUSED leads with insulating tape.
- The heat sink becomes very hot after use. Be careful not to touch it when removing this unit



ไทย
ชุดประกอบนี้ได้รับการออกแบบมาเพื่อใช้งนกับระบบ กระแสไฟฟ้าสายดินขั้วลบกระแสตรง 12 โวลท์ หากรถยนต์ของกุณไม่ไ ด้ใช้ระบบนี้ ต้องใช้เเรื่องแปลงกระแสไไฟ่ว่ย ซึ่งสามารถหาซื้อได้จกรร้านขายเครื่องเสียงรถยนต์ JVC

## คำเตือน



- ตรวจสอบให้แน่ใจว่าได้เดินสายดินต่อระหว่างเฉรื่องกับตัวถัง รถยนต์ใหมแล้วหลังจากติตตั้ง


## หมายเหตุ:

- ใช้พิพักัดำเพาะแทนฟิวส หากฟิวส์ขาดบ่อย ให้ปรรกบาร้า นขายเครื่องเสียงรถยนต์ JVC
- ขอแนะนำให้ต่อลำโพง ที่มีกำลังขับสงสุดเกินกว่า 50 W (ทั้งด้านหน้าและด้านหลัง มีค่าความต้านทาน $4 \Omega$ ถึง $8 \Omega$ ) ถ้ากำลังขับต่ำกว่า 50 W ให้เปลี่ยนค่า "AMP GAIN" เพื่อป้องกันไม่ให้ลำโพงชำรุด (ดูนน้า 15 คำแนะนำ)
- การป้องกันการลัควงจร จะต้องพันขั้วสยตะกั่ว ที่ไม่ใช้แล้วดวอยเท ปพันสยยไฟ
- แผ่นระบายความร้อนจะร้อนมากหลังจากให้ ระมัดระวังอย่าไป สัมผัสเมื่อถอดชุดประกอบนี้


Heat sink / แผ่นระบายความร้อน

PRECAUTIONS on power supply and speaker connections:

- DO NOT connect the speaker leads of the power cord to the car battery; otherwise, the unit will be seriously damaged.
- BEFORE connecting the speaker leads of the power cord to the speakers, check the speaker wiring in your car.


## ข้อควรระวังสำหรับการต่อแหล่งจ่ายกำลังและลำโพง:

- อย่าต่อสายตะกั่วเคเบิลกำลังของลำโพงเข้ากับแบตเตอรี่รถยนต์ มิฉะนั้น ชุดประกอบจะได้บับความเสียหายมาก
- ก่อนที่จะต่อสายตะกั่วเคเบิลกำลังของลำโพงเข้ากับลำโพง ให้ตรวจสอบการเดินสายไฟลำโพงในรถของคุณให้เรียบร้อยเสียก่อน


Parts list for installation and connection
The following parts are provided for this unit. If any item is missing, consult your JVC car audio dealer immediately.

## รายการส่วนประกอบสำหรับติดตั้งและเชื่อมตอกัน

ส่วนประกอบต่อไปนี้ให้มากับชุดประกอบนี้ หากมีสิ่งใดไมครบ กรุณาปรึกษาตัวแทนจำหน่ายเครื่องเสียงติดรถยนต์ JVC โดยทันที

(D)

Trim plate แผ่นโลหะขอบแต่ง

(E)

Power cord
ายเคเบิลกำลัง
$\stackrel{\oplus}{\text { Lock nut (M5) }}$ นอตล็อค (M5)
(1)

Mounting bolt (M4×5 mm; M5 $\times 12.5 \mathrm{~mm}$ ) สลักติด (M4 $\times 5$ มม.; $\mathrm{M} 5 \times 12.5$ มม.)


Direct connection cable for iPod สำหรับการตอสาย iPod โดยตรง

(C)

Sleeve ${ }_{\nu}$
ปลอกหุ้ม
(6)

Washer (ø5) ประเก็นวงแหวน (ø5)



(M)

Battery แบตเตอร

The following illustration shows a typical installation. If you have any questions or require information regarding installation kits, consult your JVC car audio dealer or a company supplying kits.

- If you are not sure how to install this unit correctly, have it installed by a qualified technician.

การติดตั้ง (การประกอบแผงหน้าปัทม์เข้า)
ภาพตัวอยู่างต่อไปนี้แสดงถึงการติดตั้งแบบทั่วไป หากคุณมีปัญหาหรือต้องกรข้อมูลเกี่ยวกับชุดติดตั้ง กรุณาปรึกษกกับผู้ขยยเครื่องเสี ยงรถยนต์ JVC ของท่านหรือบริษั

- ชุคประกอบ ถ้าคุณไม่แน่ใจ่าติติตั้ชุดประกอบนี้ถูกต้องหรือไม่ ให้หาช่างผู้เี่ยวชชาญเป็นผู้ติดตั้ง



## Removing the unit

Before removing the unit, release the rear section.

การถอดชุดประกอบ
ก่อนจะถอดชุดประกอบ ให้ปลดหน้าตัตส่วนท้ายก่อน


When using the optional stay / เมื่อใช้ตัวยึดแบบเลือกได้



Install the unit at an angle of less than $30^{\circ}$. ติดตั้งชุดประกอบที่มุมต่ำกว่า $30^{\circ}$ องศา

When installing the unit without using the sleeve / เมื่อติดตั้งชุดประกอบโดยไม่ใช้ปลอกหุ้ม
In a Toyota car for example, first remove the car radio and install the unit in its place.
ตัวอย่างเช่น ในรถยนตโโตโยต้า ให้ถอดวิทยุติครถยนต์ออกก่อน แล้วจึงติดตั้งเคื่องนี้เข้าแทนที่


Note : When installing the unit on the mounting bracket, make sure to use the 8 mm -long screws. If longer screws are used, they could damage the unit.
หมายเหต : เมื่อติดตั้งชุดประกอบลงในแท่นรองรับไว้ ให้ใช้สกรูยาวขนาด 8 มม. ถ้าใช้สกรูยาวกว่านี้อาจทำใหชุดประกอบเสียหายได้

[^7][^8]
## ELECTRICAL CONNECTIONS

## A Typical connections / การเชื่อมต่อแบบปกต

Before connecting: Check the wiring in the vehicle carefully. Incorrect connection may cause serious
damage to this unit.
The leads of the power cord and those of the connector from the car body may be different in color.
1 Connect the colored leads of the power cord in the order specified in the illustration below.
2 Connect the antenna cord.
3 Finally connect the wiring harness to the unit.

ก่อศทำกาตเชต่อมต่อ: ตศวจ อศกาศเดิศ าย่ไฟใศศตยตต์อย่างตะมัดศะวัอย่าให้้ดพศาดใตกาศเชต่อมต่อชุดปตะกอศชุดศี กาศเชต่อมต่อผิดพตาดอาจทำให้เกิดความเี่ยหายต้ายแตงกัตชุดปศะ
กอศศี้ได้าศตะกั่วของ ยยไฟ แศะของอุปกตต์ต่อเชต่อมจากตัวต งตศอาจมี ที่ไม่เหมตอศกั
1 ต่อสายไฟสีตามลำดับที่ระบุในรูปด้านล่าง
2 เชื่อมต่อกับายอากาศ
3 สุดท้าย ต่อส่วนควบคุมการเดินสายไฟเข้ากับชุดประกอบชุดนี้

| Line out (see diagram B) | Rear ground terminal <br> ายดเ่ <br> ายออก (ดูแผนภูม $\mathbf{B})$ |
| :--- | :--- |



ตัวเชื่อมสายอากาศ
(1) To the metallic body or chassis of the car ต่อกับโครงโลหะหรือเชสซิสของรถยนต์

1

(3) To an accessory terminal in the fuse block ต่อกับขั้วส่วนประกอบในแผงฟีว

Blue with white stripe สีน้ำเงินลายขาว

(4)

15 A fuse
${ }^{\text {iPod connector (see diagram } \mathbf{C})}$
15 A
 To the automatic antenna if any ( 250 mA max.) เสาอากาศ่ไฟฟ้าอัตโนมัติ หากมี (ขนาดสูงสุ 250 mA )


To the remote lead of other equipment ( 200 mA max.) ต่อเข้ากับอปกรณอื่น (ขนาดสูงสุด 200 mA )


[^9][^10]B Connecting the external amplifier or subwoofer / ต่อแอมปลิฟายเออร์หรือขับมูฟเฟอรรด้านนอ
You can connect an amplifier to upgrade your car stereo system.

- Connect the remote lead (blue with white stripe) to the remote lead of the other equipment so that it
can be controlled through this unit.
- Disconnect the speakers from this unit, connect them to the amplifier. Leave the speaker
leads of this unit unused.

คุณสามารถต่อกับแอมพลิฟายเออร์ เพื่อเพิ่มคุณ ภาพเสียงให้กับระบบสเตอริโอของรถยนต์

- ต่อสายตะกั่วระยะไกล (สีน้ำเงินลายขาว) เข้ากับสายตะกั่วระยะไกลของอุปกรณ์นื่น ๆ เพื่อจะสามารถควบคุมโดยชุดประ กอบนี้ใด้
- ถอดลำโพงออกจากชุดประกอบนี้ แล้วต่อเข้ากับเครื่องขยาย ทิ้งสายตะกั่วลำโพงของชุดประกอบนี้ไว้



## Connecting an Apple iPod / การเชื่อมตอลับ Apple iPod

You can connect an iPod to this unit using the supplied direct connection cable for iPod. ท่านสามารถเชื่อมต่อ iPod กับเครื่องเล่นนี้ได้ไดยการใช้สายเชื่อมต่อโดยตรงสำหรับ iPod

*3 Firmly attach the ground wire to the metallic body or to the chassis of the car-to the place uncoated with paint (if coated with paint, remove the paint before attaching the wire). Failure to do so may cause damage to the unit.
*3 ต่อลวดสายดินให้แน่นเข้ากับตัวถังเหล็ก หรือตัวถังรถ—ตรงส่วน ที่ไม่มีสีเคลือบ (หากมีสีเคลือบอยู่ ให้ขูดสีออกก่อน ก่อนต่อลวดสายดิน) หากไม่ปฏิบิติตามคำแนะนำนี้ เครื่องอาจชำรุดหรือเสียหายได

## TROUBLESHOOTING

## - The fuse blows

* Are the red and black leads connected correctly?
- Power cannot be turned on.
* Is the yellow lead connected?
- No sound from the speakers.
* Is the speaker output lead short-circuited?


## - Sound is distorted.

* Is the speaker output lead grounded?
* Are the "-" terminals of L and R speakers grounded in common?
- Noise interfere with sounds.
* Is the rear ground terminal connected to the car's chassis using shorter and thicker cords?


## - This unit becomes hot

* Is the speaker output lead grounded?
* Are the "-" terminals of L and R speakers grounded in common?
- This unit does not work at all.
* Have you reset your unit?


## การตรวจสอบปัญหาขัดบ้อง

- ฟิวส์ขาด
* มีการเชื่อม ายตะกั่าสีคำและสีแดงอยางููกต่องหรือไม
- ไม่สามารถเปิดเฉรื่องได
* มีการืื่อมสายตะกั่วสีเหลืองหรือไม่
- ไมมีเสียงออกจากลำโพง
* สยตะกั่วส่วนที่ออกทางลำพงเกิดไฟฟ้าลัดวงจรหรือไม่
- เสียงเพี้ยน
* สาตตูะกั่วส่วนที่ออกทางลำโพงตู่อลงดินหรือไม่
* สยขั้วลบ "-" ของลำโพงด้านซ้ายและขวาต่อลงดินตามปกติหรือไไม
- เสียงรบกวน
* มีการใช้สยสั้นๆ หรือหนาๆ ต่อจากเครื่องสวนที่ติดตั้ง ไว้บนพื้นด้านหลังกับตัวถังรถยนต์หรือไม่
- ชุดประกอบร้อนขึ้น
* สายตูะกั่วส่วนที่ออกทางลำโพงตู่อลงดินหรือไม่
* สยขั้วลบ "-" ของลำโพงดานซายและขวาตอลงดินตามปกติหรือไม
- เคคื่องรับนี้ทำงานไม
* ทานไดตั้งเครื่องใหมแลววหรือั้ง


For canceling the display demonstration, see page 6.
Untuk membatalkan tampilan demonstrasi, lihat halaman 6.

For installation and connections, refer to the separate manual. Untuk instalasi dan penyambungan, lihat buku pedoman terpisah.


Thank you for purchasing a JVC product．
Please read all instructions carefully before operation，to ensure your complete understanding and to obtain the best

## IMPORTANT FOR LASER PRODUCTS

1．CLASS 1 LASER PRODUCT
2．CAUTION：Do not open the top cover．There are no user serviceable parts inside the unit；leave all servicing to qualified service personnel．
3．CAUTION：Visible and／or invisible class 1M laser radiation when open．Do not view directly with optical instruments．
4．REPRODUCTION OF LABEL：CAUTION LABEL，PLACED OUTSIDE THE UNIT．

| CAUTION <br> VISIBLE AND／OR INVISIBLE CLASS 1M LASER RADIATON WHEN OPEN．DO NOT VIEW DIRECTLY WTH OPTCAL INSTRUMENTS． IEC60825－1：2001 | ATTENTION <br> RAYONNEMENT LASER <br> VISIBLE ET／OU <br> INVISIBLE DE CLASSE <br> 1M UNE FOIS OUVERT． <br> NE PAS REGARDER <br> DIRECTEMENT AVEC <br> DES INSTRUMENTS <br> OPTIQUES．（FRA） | AVISO <br> RADIACIÓN LÁSER DE CLASE 1M VISIBLE Y／O INVIISILLE CUANDO ESTÁ ABIERTO．NO MIRAR DIRECTAMENTE CON INSTRUMENTAL ÓPTICO． （ESP） | VARNING <br> SYNLIG OCH／ELER OSYNLG <br> LASERSTRÅLNING， <br> KLASS 1M，NAAR DENNA <br> DE ÄR ÖPPNAD． <br> BETRAKTA EJ <br> STRALEN MED OPTISKA <br> （SSTRUMENT <br> NSTRUMENT．（SWE） | 注意 <br> ここを開くと可視及びまたは不可視 のクラス1M <br> レーザー收射が <br> 出ます。 <br> 光学装置て直接 <br> 見ないでください。 <br> （JPN） | CAUTION VISIBIE AND／OR INVISIBLE CLASS I LASER RADIATION WHEN OPEN． DO NOT STARE INTO BEAM． FDA 21 CFR |
| :---: | :---: | :---: | :---: | :---: | :---: |



## Warning：

If you need to operate the unit while driving，be sure to look around carefully or you may be involved in a traffic accident．

## 「 Detaching the control panel



Attaching the control panel



- Your preset adjustments will also be erased.


## [ How to forcibly eject a disc



- Be careful not to drop the disc when it ejects.
- If this does not work, reset your unit.

Ex.: When number button 2 works as M0 (monaural) button.


## How to use the M MODE button

If you press M MODE, the unit goes into functions mode, then the number buttons and $\mathbf{\Delta} / \boldsymbol{\nabla}$ buttons work as different function buttons.

To use these buttons for their original functions again after pressing M MODE, press M MODE again.

- Waiting for about 5 seconds without pressing any of these buttons will automatically cancels the functions mode.


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## For safety...

- Do not raise the volume level too much, as this will block outside sounds, making driving dangerous.
- Stop the car before performing any complicated operations.


## Temperature inside the car...

If you have parked the car for a long time in hot or cold weather, wait until the temperature in the car becomes normal before operating the unit.

## Parts identification

## Display window


$1 \boldsymbol{\Delta}$ (up) / $\boldsymbol{\nabla}$ (down) buttons
2 ㅡ (eject) button
3 Ј/I ATT (standby/on attenuator) button
4 Control dial
5 Remote sensor
DO NOT expose the remote sensor to strong light (direct sunlight or artificial lighting).
6 BAND button
7 Loading slot
8 Display window
9 EQ (equalizer) button
10 DISP (display) button
11 (control panel release) button
12 i (iPod) button
$131 \ll \boldsymbol{V} \rightarrow$ 人 buttons
14 SRC (source) button
15 SEL (select) button
16 M MODE button
17 MO (monaural) button
18 SSM (Strong-station Sequential Memory) button

19 Number buttons
20 RPT (repeat) button
21 RND (random) button
22 AUX (auxiliary) input jack
23 Source display / Track number / Folder number /
Time countdown indicator
$24 \operatorname{Tr}$ (track) indicator
25 DISC indicator
26 Playback mode / item indicators-RND (random), - (disc), ᄃ (folder), RPT (repeat)

27 Tuner reception indicators-ST (stereo), MO (monaural)
28 Sound mode (iEQ: intelligent equalizer) indicators —CLASSIC, HIP HOP, JAZZ, ROCK, POPS, USER
29 LOUD (loudness) indicator
30 EQ (equalizer) indicator
31 Disc information indicatorsTAG (Tag information), (folder), 』 (track/file)
32 Main display

Installing the lithium coin battery (CR2025)


## Aim the remote controller directly at the remote sensor on the unit. Make sure there is no obstacle in between.

## Warning:

- Do not install any battery other than CR2025 or its equivalent; otherwise, it may explode.
- Do not leave the remote controller in a place (such as the dashboard) exposed to direct sunlight for a long time; otherwise, it may explode.
- Store the battery in a place where children cannot reach to avoid the risk of accidents.
- To prevent the battery from over-heating, cracking, or starting a fire:
- Do not recharge, short, disassemble, heat the battery, or dispose of it in a fire.
- Do not leave the battery with other metallic materials.
- Do not poke the battery with tweezers or similar tools.
- Wrap the battery with tape and insulate when throwing away or saving it.


1 J/I/ATT (standby/on/attenuator) button

- Turns the power on if pressed briefly or attenuates the sound when the power is on.
- Turns the power off if pressed and held.
- U (up) / D (down) $\boldsymbol{\nabla}$ buttons
- Changes the FM/AM bands with $\mathbf{\triangle} U$.
- Changes the preset stations with D $\mathbf{\nabla}$.
- Changes the folder of the MP3/WMA discs.
- While listening to an Apple iPod.
- Enters the main menu if pressed and held.
(Now $\triangle U / D \nabla / \subset R / F$ work as the menu selecting buttons.)
- While listening to an iPod (in menu selecting mode):
- Selects an item if pressed D $\boldsymbol{\nabla}$ briefly. (Then, press and hold D $\boldsymbol{\nabla}$ to play back the selection directly.)
- Returns to the previous menu if pressed $\mathbf{\Delta} U$ briefly.
3 VOL-/ VOL + buttons
- Adjusts the volume level.

4 SOUND button

- Selects the sound mode (iEQ: intelligent equalizer).
5 SOURCE button
- Selects the source.
$6<R$ (reverse) / F (forward) buttons
- Searches for stations if pressed briefly.
- Fast-forwards or reverses the track if pressed and held.
- Changes the track if pressed briefly.
- While listening to an iPod (in menu selecting mode):
- Accelerated file search: Hold $\boldsymbol{< R / F} \boldsymbol{t}$ to fast skip during song search in the main menu.


## Getting started

## Basic operations

(1) Turn on the power.


*1 You cannot select "CD" as the playback source if there is no disc in the unit.
*2 "NO IPOD" appears if an iPod is not connected.

## 3 For FM/AM tuner



4 Adjust the volume.


## VOLUME 20

Volume level appears.
5 Adjust the sound as you want. (See pages 12 and 13.)

## Caution on volume setting:

Discs produce very little noise compared with other sources. Lower the volume before playing a disc to avoid damaging the speakers by the sudden increase of the output level.

| To drop the volume in a <br> moment (ATT) <br> To restore the sound, press <br> the button again. |  |
| :--- | :--- |
| To turn off the power | ATT |

## Basic settings

- See also "General settings - PSM" on pages 14 and 15.

1


2


1 Canceling the display demonstrations Select "DEMO," then "DEMO OFF."
2 Setting the clock
Select "CLOCK HOUR," then adjust the hour. Select "CLOCK MIN" (minute), then adjust the minute.

3 Finish the procedure.


To check the current clock time while the power is turned off


## Radio operations

## 1



2


Lights up when receiving an FM stereo broadcast with sufficient signal strength.
88.30 MHz

## 3 Start searching for a station.



When a station is received, searching stops.
To stop searching, press the same button again.

## To tune in to a station manually

 In step 3 above...1


2 Select a desired station frequency.


When an FM stereo broadcast is hard to receive


Reception improves, but the stereo effect will be lost.

To restore the stereo effect, repeat the same procedure. "MONO OFF" appears and the MO indicator goes off.

## Storing stations in memory

You can preset six stations for each band.

## FM station automatic presettingSSM (Strong-station Sequential Memory)

1 Select the FM band (FM1 - FM3) you want to store into.


2


3

"SSM" flashes, then disappears when automatic presetting is over.

Local FM stations with the strongest signals are searched and stored automatically in the FM band.

## Manual presetting

Ex.: Storing the FM station of 92.50 MHz into preset number 4 of the FM1 band.


2


3


Preset number flashes for a while.

## Listening to a preset station



2 Select the preset station (1-6) you want.

or


To check other information while listening to the radio


> Frequency $\rightarrow$ Clock $\rightarrow$ Station name* $\rightarrow$ (back to the beginning)

[^11]
## Disc operations

## Playing a disc in the unit

All tracks will be played repeatedly until you change the source or eject the disc.


## To stop play and eject the disc

## 足 <br> - Press SRC to listen to another playback source.

| [Hold]To fast-forward or reverse the <br> track |
| :--- | :--- | :--- |
| [Press]To go to the next or previous <br> track |
| To go to the next or previous <br> folder (only for MP3 or WMA <br> discs) |

## To locate a particular track (for CD) or folder (for MP3 or WMA discs) directly

 To select a number from $01-06$ :

To select a number from $07-12$ :

[Hold]
－To use direct folder access on MP3／WMA discs，it is required that folders are assigned with 2－digit numbers at the beginning of their folder names－ $01,02,03$ ，and so on．

To select a particular track in a folder （for MP3 or WMA discs）：


## Other main functions

## Skipping tracks quickly during play

－For MP3 or WMA discs，you can skip tracks within the same folder．
Ex．：To select track 32 while playing a track whose number is a single digit（1 to 9 ）

1
MODE
$M$
2


Each time you press the button，you can skip 10 tracks．
－After the last track，the first track will be selected and vice versa．

3


## Prohibiting disc ejection

You can lock a disc in the loading slot．

＂EJECT LOCK＂flashes on the display．
To cancel the prohibition，repeat the same procedure．

## Changing the display information



## While playing an audio CD or CD Text

$\mathrm{A} \rightarrow \mathrm{B} \rightarrow$ Disc title／performer＊1 $\rightarrow$ Track title $^{* 1}$［』］$\rightarrow$（back to the beginning）

## While playing an MP3 or a WMA track

－When＂TAG DISPLAY＂is set to＂TAG ON＂ （see page 15）
$A \rightarrow B \rightarrow$ Album name／performer（folder name ${ }^{* 2}$ ）$\left[\right.$ TAG $\left.{ }^{-}\right] \rightarrow$ Track title（file
name ${ }^{* 2}$ ）［TAG 月］$\rightarrow$（back to the beginning）
－When＂TAG DISPLAY＂is set to＂TAG OFF＂
$A \rightarrow B \rightarrow$ Folder name［ $\square$ ］File name
［．』］$\rightarrow$（back to the beginning）

A ：Current track number with the elapsed playing time
B ：Current track number with the clock time
［ ］：Corresponding indicator lights up on the display．
＊1 If the current disc is an audio CD，＂NO NAME＂appears．
＊2 If an MP3／WMA file does not have Tag information， folder name and file name appear．In this case，the TAG indicator will not light up．

## Selecting the playback modes

You can use only one of the following playback modes at a time.

1 mode
M

2 Select your desired playback mode.

| - Repeat play | $y$ |
| :---: | :---: |
| Mode | Plays repeatedly |
| TRACK RPT : | The current track. [RPT] |
| FOLDER RPT*: | All tracks of the current folder. [ $\sim$ RPT] |
| RPT OFF : | Cancels. |

R Random play

## Mode Plays at random

FOLDER RND*: All tracks of the current folder, then the tracks of the next folder and so on. [RND $\sim$ ]
ALL RND : All tracks of the current disc.
[RND○]
RND OFF : Cancels.

[^12][ ]: Corresponding indicator lights up on the display.

## Pod operations

You can play songs in an Apple iPod by connecting it with the supplied direct connection cable for iPod. You can control playback from the unit or from your iPod.

- Disconnecting the iPod will stop playback. Press SRC to listen to another playback source.


## Caution:

- Avoid using the iPod if it might hinder your safety while driving.
- Make sure all important data has been backed up to avoid losing the data.
- For connection, see the Installation/Connection Manual (separate volume).
- For details, refer also to the manual supplied for your iPod.


## (1) Connect an iPod.



If an iPod has been connected...


To directly select "IPOD" as the source while listening to another source or when the power is turned off.

Playback starts automatically from where it had been paused previously.

## 2 Adjust the volume.


（3）Adjust the sound as you want．（See pages 12 and 13．）

## To control playback from your iPod


－Press and hold this button again to control playback from the unit．＂HEAD MODE＂appears on the display．

## Playback control from the unit

|  | ［Press］Go to the next or previous track |
| :---: | :---: |
|  | ［Hold］Fast－forward or reverse the track during playback Fast－skip the menu items of the main menu |
| （－） | ［Hold］Enter the main menu（see the right column）． |
| － | ［Press］Pause／resume playback． |
|  |  |
| ［Press］Go to the top menu of＂PLAYLIST，＂＂ARTIST，＂ ＂ALBUM，＂＂SONG，＂＂PODCAST，＂or＂GENRE＂in the main menu（see the right column）． |  |
|  |  |
| ［Hold］Go to the top menu of＂COMPOSER＂or ＂AUDIOBOOK＂in the main menu（see the right column）． |  |

## Selecting a track from the menu

## 1 Enter the main menu．



Now the $\boldsymbol{\Delta} / \boldsymbol{\nabla} / 1<\boldsymbol{V} / \rightarrow \boldsymbol{\sim}$／number buttons work as the menu selecting buttons．

## 2 Select the desired menu．



$$
\begin{aligned}
& \text { PLAYLIST } \leftrightarrow \text { ARTIST } \leftrightarrow \text { ALBUM } \leftrightarrow \text { SONG } \\
& \leftrightarrow \text { PODCAST } \leftrightarrow \text { GENRE } \leftrightarrow \text { COMPOSER } \leftrightarrow \\
& \text { AUDIOBOOK } \leftrightarrow \text { (back to the beginning) }
\end{aligned}
$$

－Pressing the number buttons can directly select the desired menu（see the left column for details）．

## 3 Confirm the selection．



To move back to the previous menu，press $\mathbf{\Delta}$ ．
－Holding the button will start play back the selected item directly．
－If a track is selected，playback starts automatically．
－If the selected item has another layer，you will enter the layer．Repeat steps $\mathbf{2}$ and $\mathbf{3}$ until the desired track is played．
－Accelerated file search：Hold 14ム V／かへ to fast skip during song search in the main menu．

## To exit from menu selecting mode



* The menu selecting mode will be canceled: - If no operations are performed for about 10 seconds.
- When you confirm the selection of a track.
- Pressing some other buttons such as DISP, SEL, MODE, or EQ.


## Selecting the playback modes

1


2 Select your desired playback mode.

| - Repeat play | play $\begin{gathered}11 \mathrm{RPT} \\ 5\end{gathered}$ |
| :---: | :---: |
| Mode Pla | Playback functions (as on iPod) |
| ONE RPT : Sa | Same as "Repeat One." [ RPT] |
| ALL RPT : Sa | Same as "Repeat All." [ ORPT] |
| RPT OFF : Ca | Cancels. |
| - Random play | play 6 |
| Mode | Playback functions (as on iPod) |
| SONG RND : | : Same as "Shuffle Songs." [RND] |
| ALBUM RND*: | *: Same as "Shuffle Albums." <br> [RNDT] |
| RND OFF | Cancels. |
| * Functions only ifyou select "ALL" in "ALBUMS" of the main menu |  |
| [ ]: Corresponding indicator lights up on the display. |  |

## To check other information while listening to an iPod



Current track number with the elapsed playing time $\rightarrow$ Current track number with the clock time $\rightarrow$ Track title ${ }^{*} \rightarrow$ Album name/ performer* $\rightarrow$ (back to the beginning)

* When "TAG DISPLAY" is set to "TAG OFF," file name and folder name appear.


## Sound adjustments

You can select a preset sound mode suitable to the music genre (iEQ: intelligent equalizer).


## Adjusting the sound

You can adjust the sound characteristics to your preference.

- The adjustment you make will be stored for the currently selected sound mode (iEQ) including "USER."


Indication, [Range]
FADER*2, [R06 to F06]
Adjust the front and rear speaker balance.
BALANCE*3, [L06 to R06]
Adjust the left and right speaker balance.

Indication, [Range]
LOUD*4 (loudness), [LOUD ON or LOUD OFF]
Boost low and high frequencies to produce a well-balanced sound at a low volume level.

SUBWOOFER ${ }^{* 1}$, [00 to 08, initial: 04]
Adjust the subwoofer output level.
VOL ADJ (volume adjust), [ -05 to +05 , initial: 00]
Adjust the volume level of each source (except FM), in relation to the FM volume level. The volume level will automatically increase or decrease when you change the source.

- Before making an adjustment, select the source you want to adjust.

VOLUME, [00 to 50 or 00 to 30 ]*5
Adjust the volume.
*1 Displayed only when "L/O MODE" is set to "SUB.W" (see page 15).
*2 If you are using a two-speaker system, set the fader level to "00."
*3 This adjustment will not affect the subwoofer output.
*4 The adjustment made (LOUD ON/LOUD OFF) will be applied to all sound modes.
*5 Depending on the amplifier gain control setting. (See page 15 for details.)

## Storing your own sound mode

You can adjust the sound modes and store your own adjustments in memory.

1 Select a sound mode.


2 Enter the adjustment mode.


- If no operation is done within 5 seconds, this mode is canceled.

3 Select a sound characteristic.


4 Adjust the sound elements of the selected sound characteristic.
1 Adjust the frequency.


2 Adjust the level.


3 Adjust the quality slope (Q).


| Sound <br> elements | Range/selectable items |  |  |
| :--- | :--- | :--- | :--- |
|  | BASS | MID | TRE |
| Frequency | 60 Hz | 500 Hz | 7.5 kHz |
|  | 80 Hz | 1.0 kHz | 10.0 kHz |
|  | 100 Hz | 1.5 kHz | 12.5 kHz |
|  | 120 Hz | 2.5 kHz | 15.0 kHz |
| Level | -06 to | -06 to | -06 to |
|  | +06 | +06 | +06 |
| Q (Q-slope) | $Q 0.5$ | $Q 0.75$ | Q0.75 |
|  | $Q 1.0$ | $Q 1.0$ | $\mathrm{Q1.25}$ |
|  | $Q 1.5$ | $\mathrm{Q1.25}$ |  |
|  | $Q 2.0$ | $Q 1.5$ |  |

BASS: Bass MID: Mid-range TRE: Treble
5 The adjustment made will be stored automatically. Repeat steps 3 and 4 to adjust other sound characteristics.

## General settings - PSM

You can change PSM (Preferred Setting Mode) items listed in the table below and on page 15.

1


2 Select a PSM item.


## 3 Adjust the PSM item selected.



## 4 Repeat steps 2 and 3 to adjust other PSM items if necessary.

## 5 Finish the procedure.



| Indications | Item (___: Initial) | Setting, [reference page] |
| :---: | :---: | :---: |
| DEMO <br> Display demonstration | - DEMO ON <br> - DEMO OFF | : The display demonstration will be activated automatically if no operation is done for about 20 seconds, [6]. <br> : Cancels. |
| CLOCK DISP* ${ }^{*}$ <br> Clock display | $\begin{aligned} & \text { - CLOCK ON } \\ & \text { • CLOCK OFF } \end{aligned}$ | : The clock time is shown on the display at all times when the power is turned off. <br> : Cancels; pressing DISP will show the clock time for about 5 seconds when the power is turned off, [6]. |
| CLOCK HOUR <br> Hour adjustment | 1-12 | [Initial: 1 (1:00)], [6]. |
| CLOCK MIN <br> Minute adjustment | 00-59 | [Initial: 00 (1:00)], [6]. |
| DIMMER <br> Dimmer | $\begin{aligned} & \cdot \mathrm{ON} \\ & \cdot \mathrm{OFF} \end{aligned}$ | : Dims the display and button illumination. <br> : Cancels. |

[^13]| Indications | Item $\qquad$ _ Initial) | Setting, [reference page] |
| :---: | :---: | :---: |
| AUDIOBOOKS*2 <br> Speed control of "Audiobook" | - NORMAL <br> - FASTER <br> - SLOWER | : You can select the playback speed of the "Audiobook" sound file in your iPod. |
| SCROLL*3 <br> Scroll | $\begin{aligned} & \text { - ONCE } \\ & \text { - AUTO } \\ & \text { - OFF } \end{aligned}$ | : Scrolls the displayed information once. <br> : Repeats scrolling (at 5-second intervals). <br> : Cancels. <br> - Pressing DISP for more than one second can scroll the display regardless of the setting. |
| L/O MODE <br> Line output mode | - REAR <br> - SUB.W | : Select if the REAR LINE OUT terminals are used for connecting the speakers (through an external amplifier). <br> : Select if the REAR LINE OUT terminals are used for connecting a subwoofer (through an external amplifier). |
| SUB.W FREQ*4 <br> Subwoofer cutoff frequency | - LOW <br> - MID <br> - HIGH | : Frequencies lower than 90 Hz are sent to the subwoofer. <br> : Frequencies lower than 135 Hz are sent to the subwoofer. <br> : Frequencies lower than 180 Hz are sent to the subwoofer. |
| TAG DISPLAY <br> Tag display | - TAG ON <br> - TAG OFF | : Shows the Tag information while playing MP3/WMA tracks, [9]. <br> : Cancels. |
| AMP GAIN <br> Amplifier gain control | - LOW POWER <br> - HIGH POWER | : VOLUME 00 - VOLUME 30. (Select this if the maximum power of the speaker is less than 50 W to avoid damaging the speaker.) <br> : VOLUME 00 - VOLUME 50. |
| IF BAND Intermediate frequency band | - AUTO <br> - WIDE | : Increases the tuner selectivity to reduce interference noise between close stations. (The stereo effect may be lost.) <br> : Subject to interference noise from adjacent stations, but the sound quality will not be degraded and the stereo effect will remain. |

[^14]
## Other external component operations

You can connect an external component to the AUX (auxiliary) input jack on the control panel.

3.5 mm stereo mini plug (not supplied)


2 Turn on the connected component and start playing the source.
(3) Adjust the volume.

(4) Adjust the sound as you want. (See pages 12 and 13.)

To check other information while listening to an external component


## Iitle assignment

You can assign names to 30 station frequencies (FM and AM) and up to 8 characters for each station name.

1 Select FM/AM.


2 Show the title entry screen.


## 3 Assigna title.

Select a character.


2 Move to the next (or previous) character position.


Repeat steps 1 and 2 until you finish entering the title.

4 Finish the procedure.


To erase the entire title
In step 2 above...


## Maintenance

## How to clean the connectors

Frequent detachment will deteriorate the connectors. To minimize this possibility, periodically wipe the connectors with a cotton swab or cloth moistened with alcohol, being careful not to damage the connectors.


## Moisture condensation

Moisture may condense on the lens inside the unit in the following cases:

- After starting the heater in the car.
- If it becomes very humid inside the car.

Should this occur, the unit may malfunction. In this case, eject the disc and leave the unit turned on for a few hours until the moisture has evaporated.

## How to handle discs

When removing a disc from its case, press down the center holder of the case and lift the disc out, holding it by the edges.

- Always hold the disc by the edges. Do not touch its recording surface.


When storing a disc in its case, gently insert the disc around the center holder (with the printed surface facing up).

- Make sure to store discs in cases after use


## To keep discs clean

A dirty disc may not play correctly.
If a disc does become dirty, wipe it with a soft cloth in a straight line from center
 to edge.

- Do not use any solvents (for example, conventional record cleaner, spray, thinner, benzine, etc.) to clean discs..


## To play new discs

New discs may have some rough spots around the inner and outer edges. If such a disc is used, this unit may reject the disc.
To remove these rough spots, rub the edges with a pencil or ball-point pen, etc.

## Do not use the following discs:

Single CD ( 8 cm disc)


Sticker and
sticker residue


Stick-on label

Unusual shape


## More about this unit

## Basic operations

## Turning on the power

- By pressing SRC (source) or i (iPod) button on the unit, you can also turn on the power. If the source is ready, playback also starts.


## Turning off the power

- If you turn off the power while listening to a track, playback will start from where it had been stopped previously next time you turn on the power.


## General

- If you change the source while listening to a disc or an iPod, playback stops.
Next time you select "CD" or "IPOD" as the playback source, playback will start from where it had been stopped/paused previously.

Continued on the next page

- After ejecting a disc or disconnecting an iPod, "NO DISC" or "NO IPOD" appears and you cannot operate some of the buttons. Insert another disc, connect an iPod, or press SRC to select another playback source.


## Tuner operations

## Storing stations in memory

- During SSM search...
- All previously stored stations are erased and the stations are stored anew.
- Received stations are preset in №. 1 (lowest frequency) to No. 6 (highest frequency).
- When SSM is over, the station stored in №. 1 will be automatically tuned in.
- When storing a station manually, the previously preset station is erased when a new station is stored in the same preset number.


## Disc operations

## Caution for DualDisc playback

- The Non-DVD side of a "DualDisc" does not comply with the "Compact Disc Digital Audio" standard. Therefore, the use of Non-DVD side of a DualDisc on this product may not be recommended.


## General

- This unit has been designed to reproduce CDs/CD Texts, and CD-Rs (Recordable)/CD-RWs (Rewritable) in audio CD (CD-DA), MP3 and WMA formats.
- When a disc is inserted upside down, "PLEASE" and "EJECT" appear alternately on the display. Press $\boldsymbol{\Delta}$ to eject the disc.
- MP3 and WMA "tracks" (words "file" and "track" are used interchangeably) are recorded in "folders."
- While fast-forwarding or reversing on an MP3 or WMA disc, you can only hear intermittent sounds.


## Playing a CD-R or CD-RW

- Use only "finalized" CD-Rs or CD-RWs.
- This unit can only play back files of the same type as those which are detected first if a disc includes both audio CD (CD-DA) files and MP3/WMA files.
- This unit can play back multi-session discs; however, unclosed sessions will be skipped while playing.
- Some CD-Rs or CD-RWs may not play back on this unit because of their disc characteristics, or for the following reasons:
- Discs are dirty or scratched.
- Moisture condensation has occurred on the lens inside the unit.
- The pickup lens inside the unit is dirty.
- The files on the CD-R/CD-RW are written using the "Packet Write" method.
- There are improper recording conditions (missing data, etc.) or media conditions (stained, scratched, warped, etc.).
- CD-RWs may require a longer readout time since the reflectance of CD-RWs is lower than that of regular CDs.
- Do not use the following CD-Rs or CD-RWs:
- Discs with stickers, labels, or a protective seal stuck to the surface.
- Discs on which labels can be directly printed by an ink jet printer.
Using these discs under high temperature or high humidity may cause malfunctions or damage to the unit.


## Playing an MP3/WMA disc

- This unit can play back MP3/WMA files with the extension code <.mp3> or <.wma> (regardless of the letter case-upper/lower).
- This unit can show the names of albums, artists (performer), and Tag (Version 1.0, 1.1, 2.2, 2.3, or 2.4) for MP3 files and for WMA files.
- This unit can display only one-byte characters. No other characters can be correctly displayed.
- This unit can play back MP3/WMA files meeting the conditions below:
- Bit rate: 8 kbps — 320 kbps
- Sampling frequency:

48 kHz, $44.1 \mathrm{kHz}, 32 \mathrm{kHz}$ (for MPEG-1)
$24 \mathrm{kHz}, 22.05 \mathrm{kHz}, 16 \mathrm{kHz}$ (for MPEG-2)

- Disc format: IS0 9660 Level 1/Level 2, Romeo, Joliet, Windows long file name
- The maximum number of characters for file/folder names vary depending on the disc format used (includes 4 extension characters-<.mp3> or <.wma>).
- ISO 9660 Level 1: up to 12 characters
- ISO 9660 Level 2: up to 31 characters
- Romeo: up to 128 characters
- Joliet: up to 64 characters
- Windows long file name: up to 128 characters
- This unit can recognize a total of 512 files, 255 folders, and 8 hierarchical levels.
- This unit can play back files recorded in VBR (variable bit rate).
Files recorded in VBR have a discrepancy in the elapsed time display, and do not show the actual elapsed time. In particular, this difference becomes noticeable after performing the search function.
- This unit cannot play back the following files:
- MP3 files encoded in MP3i and MP3 PRO format.
- MP3 files encoded in an inappropriate format.
- MP3 files encoded with Layer 1/2.
- WMA files encoded in lossless, professional, and voice format.
- WMA files which are not based upon Windows Media ${ }^{\oplus}$ Audio.
- WMA files copy-protected with DRM.
- Files which have data such as AIFF, ATRAC3, etc.
- The search function works but search speed is not constant.


## Ejecting a disc

- If the ejected disc is not removed within 15 seconds, it is automatically inserted into the loading slot again to protect it from dust. Playback starts automatically.


## iPod operations

- Controllable iPod:
- iPod mini
- iPod G4
- iPod photo
- iPod nano (1st \& 2nd Generation)
- iPod with video (5th Generation)
- Update your iPod to the latest software version before using it with this unit.
- When you turn on this unit, the iPod is charged through this unit.
- While connecting an iPod with Video:
- No video shows on the iPod's display or the external monitor (only the audio part is available).
- It is not possible to browse video files on the
"Video" menu. (If you connect the iPod during the playback or pausing of a video file, resuming playback will not work.)
- iPod shuffle cannot be used with this unit.
- You can control the iPod from this unit when "JVC" or " $\sqrt{ }$ " appears on the iPod display after connection.
- The song order displayed on the selection menu of this unit may differ from that of the iPod.
- If playback is stopped, select a track from the selection menu or press BAND to playback the same track again.
- The text information may not be displayed correctly:
- Some characters such as accented letters cannot be shown correctly on the display.
- Communication between the iPod and the unit is not stable.
- If the text information includes more than 11 characters, it scrolls on the display. This unit can display up to 64 characters.


## Notice:

When operating an iPod, some operations may not be performed correctly or as intended. In this case, visit the following JVC web site:
[http://www.jvc-victor.co.jp/english/car/](http://www.jvc-victor.co.jp/english/car/)

## General settings-PSM

- If you change the "AMP GAIN" setting from "HIGH POWER" to "LOW POWER" while the volume level is set higher than "VOLUME 30," the unit automatically changes the volume level to "VOLUME 30."

| Sound mode | Preset value |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | BASS (bass) |  |  | MID (mid-range) |  |  | TRE (treble) |  |  | $\begin{aligned} & \text { LOUD } \\ & \text { (loudness) } \end{aligned}$ |
|  | Freq. | Level | Q | Freq. | Level | Q | Freq. | Level | Q |  |
| USER | 60 Hz | 00 | Q1.0 | 1.0 kHz | 00 | Q1.25 | 7.5 kHz | 00 | Q1.25 | OFF |
| ROCK | 100 Hz | +03 | Q1.0 | 1.0 kHz | 00 | Q1.25 | 10.0 kHz | +02 | Q1.25 |  |
| CLASSIC | 80 Hz | +01 | Q1.0 | 1.0 kHz | 00 | Q1.25 | 10.0 kHz | +03 | Q1.25 |  |
| POP | 100 Hz | +02 | Q1.0 | 1.0 kHz | +01 | Q1.25 | 10.0 kHz | +02 | Q1.25 |  |
| HIP HOP | 60 Hz | +04 | Q1.0 | 1.0 kHz | -02 | Q1.0 | 10.0 kHz | +01 | Q1.25 |  |
| JAZZ | 80 Hz | +03 | Q1.0 | 1.0 kHz | 00 | Q1.25 | 10.0 kHz | +03 | Q1.25 |  |

Freq.: Frequency Q: Q-slope

## Troubleshooting

What appears to be trouble is not always serious. Check the following points before calling a service center.

| Symptoms |  | Remedies/Causes |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { 든 } \\ & \text { ָī } \end{aligned}$ | - Sound cannot be heard from the speakers. | - Adjust the volume to the optimum level. <br> - Check the cords and connections. |
|  | - The unit does not work at all. | Reset the unit (see page 3). |
| $\sum_{i \leq 1}$ | - SSM automatic presetting does not work. | Store stations manually. |
|  | - Static noise while listening to the radio. | Connect the antenna firmly. |
|  | - Disc cannot be played back. | Insert the disc correctly. |
|  | - CD-R/CD-RW cannot be played back. <br> - Tracks on the CD-R/CD-RW cannot be skipped. | - Insert a finalized CD-R/CD-RW. <br> - Finalize the CD-R/CD-RW with the component which you used for recording. |
|  | - Disc can neither be played back nor ejected. | - Unlock the disc (see page 9). <br> - Eject the disc forcibly (see page 3). |
|  | - Disc sound is sometimes interrupted. | - Stop playback while driving on rough roads. <br> - Change the disc. <br> - Check the cords and connections. |
|  | - "NO DISC" appears on the display. <br> - "PLEASE" and "EJECT" appear alternately on the display. | Insert a playable disc into the loading slot. |

## Symptoms

Remedies/Causes

| - Disc cannot be played back. | - Use a disc with MP3/WMA tracks recorded in a format <br> compliant with ISO 9660 Level 1, Level 2 , Romeo, or <br> Joliet. |
| :--- | :--- |
|  | - Add the extension code <.mp3> or <.wma> to the <br> file names. |
| - Noise is generated. | Skip to another track or change the disc. (Do not add the <br> extension code <.mp3> or <.wma> to non-MP3 or <br> WMA tracks.) |

- Microsoft and Windows Media are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- iPod is a trademark of Apple Inc., registered in the U.S. and other countries.


## Specifications

| AUDIO AMPLIFIER SECTION |  |  |
| :---: | :---: | :---: |
| Maximum Power Output: | Front/Rear: | 50 W per channel |
| Continuous Power Output (RMS): | Front/Rear: | 19 W per channel into $4 \Omega, 40 \mathrm{~Hz}$ to 20000 Hz at no more than $0.8 \%$ total harmonic distortion. |
| Load Impedance: |  | $4 \Omega$ ( $4 \Omega$ to $8 \Omega$ allowance) |
| Tone Control Range: | Bass: | $\pm 12 \mathrm{~dB}(60 \mathrm{~Hz}, 80 \mathrm{~Hz}, 100 \mathrm{~Hz}, 120 \mathrm{~Hz})$ |
|  | Mid-range: | $\pm 12 \mathrm{~dB}(500 \mathrm{~Hz}, 1 \mathrm{kHz}, 1.5 \mathrm{kHz}, 2.5 \mathrm{kHz})$ |
|  | Treble: | $\pm 12 \mathrm{~dB}$ ( $7.5 \mathrm{kHz}, 10 \mathrm{kHz}, 12.5 \mathrm{kHz}, 15 \mathrm{kHz}$ ) |
|  | Q (Q-slope): | Q0.5 to Q2.0 |
| Frequency Response: |  | 40 Hz to 20000 Hz |
| Signal-to-Noise Ratio: |  | 70 dB |
| Line-Out Level/Impedance: |  | $2.5 \mathrm{~V} / 20 \mathrm{k} \Omega$ load (full scale) |
| Subwoofer-Out Level/Impedance: |  | $2.5 \mathrm{~V} / 20 \mathrm{k} \Omega$ load (full scale) |
| Output Impedance: |  | $1 \mathrm{k} \Omega$ |
| Other Terminal: |  | AUX (auxiliary) input jack, iPod connector |

## TUNER SECTION

| Frequency Range: | FM: | 87.5 MHz to 108.0 MHz |
| :--- | :--- | :--- |
|  | AM: | 531 kHz to 1602 kHz |
| FM Tuner | Usable Sensitivity: | $11.3 \mathrm{dBf}(1.0 \mu \mathrm{~V} / 75 \Omega)$ |
|  | 50 dB Quieting Sensitivity: | $16.3 \mathrm{dBf}(1.8 \mu \mathrm{~V} / 75 \Omega)$ |
|  | Alternate Channel Selectivity $(400 \mathrm{kHz}):$ | 65 dB |
|  | Frequency Response: | 40 Hz to 15000 Hz |
|  | Stereo Separation: | 30 dB |
| AM Tuner | Sensitivity: | $20 \mu \mathrm{~V}$ |
|  | Selectivity: | 35 dB |


| CD PLAYER SECTION |  |
| :--- | :--- |
| Type: | Compact disc player |
| Signal Detection System: | Non-contact optical pickup <br> (semiconductor laser) |
| Number of Channels: | 2 channels (stereo) |
| Frequency Response: | 5 Hz to 20000 Hz |
| Dynamic Range: | 96 dB |
| Signal-to-Noise Ratio: | 98 dB |
| Wow and Flutter: | Max. Bit Rate: |
| MP3 Decoding Format: <br> (MPEG1/2 Audio Layer 3) | 320 kbps |
| WMA (Windows Media |  |
| Decoding Format: |  |$\quad$ Max. Bit Rate: $\quad 320$ kbps | Leasurable limit |
| :--- |

## GENERAL

| Power Requirement: | Operating Voltage: | DC $14.4 \mathrm{~V}(11 \mathrm{~V}$ to 16 V allowance) |
| :--- | :--- | :--- |
| Grounding System: | Negative ground |  |
| Allowable Operating Temperature: | $0^{\circ} \mathrm{C}$ to $+40^{\circ} \mathrm{C}$ |  |
| Dimensions (W $\times \mathrm{H} \times \mathrm{D}$ ): (approx.) | Installation Size: | $182 \mathrm{~mm} \times 52 \mathrm{~mm} \times 160 \mathrm{~mm}$ |
|  | Panel Size: | $188 \mathrm{~mm} \times 58 \mathrm{~mm} \times 6 \mathrm{~mm}$ |
| Mass: | 1.3 kg (excluding accessories) |  |

[^15]
# Having TROUBLE with operation? Please reset your unit 

 Refer to page of How to reset your unit
## Ada MASALAH dengan cara pengoperasian? Setel kembali unit Anda

Lihat halaman mengenai Bagaimana mereset unit anda

## Jvc

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# JV■ <br> KD-PDR45 <br> Installation/Connection Manual Manual Pemasangan/Penyambungan 

## ENGLISH

This unit is designed to operate on 12 V DC, NEGATIVE ground electrical systems. If your vehicle does not have this system, a voltage inverter is required, which can be purchased at JVC car audio dealers.

## WARNINGS

To prevent short circuits, we recommend that you disconnect the battery's negative terminal and make all electrical connections before installing the unit.

- Be sure to ground this unit to the car's chassis again after installation.


## Notes:

- Replace the fuse with one of the specified rating. If the fuse blows frequently, consult your JVC car audio dealer.
- It is recommended to connect speakers with a maximum power of more than 50 W (both at the rear and at the front, with an impedance of $\mathbf{4} \Omega$ to $\mathbf{8} \Omega$ ). If the maximum power is less than 50 W , change "AMP GAIN" setting to prevent the speakers from being damaged (see page 15 of the INSTRUCTIONS).
- To prevent short circuits, cover the terminals of the UNUSED leads with insulating tape.
- The heat sink becomes very hot after use. Be careful not to touch it when removing this unit.


Heat sink / Pendingin

## PRECAUTIONS on power supply and speaker connections:

- DO NOT connect the speaker leads of the power cord to the car battery; otherwise, the unit will be seriously damaged.
- BEFORE connecting the speaker leads of the power cord to the speakers, check the speaker wiring in your car.


## INDONESIA

 -

Unit ini didisain untuk beroperasi hanya pada 12 V DC, sistem listrik tanah NEGATIVE. Jika kendaraan anda tidak memiliki sistem ini, sebuah pembalik tegangan diperlukan, yang mana dapat dibeli di penyalurpenyalur audio mobil JVC

## PERINGATAN

Untuk mencegah hubungan pendek, kami menyarankan anda memutuskan sambungan terminal negatif baterai dan membuat semua sambungan-sambungan listrik sebelum memasang unit.

- Pastikan untuk mentanahkan unit ini ke casis mobil kembali setelah pemasangan.


## Catatan:

- Ganti sekring dengan voltase yang sudah ditetapkan. Jika sekring sering meledak, konsultasikan pada penyalur audio mobil JVC anda.
- Disarankan untuk menghubungkan speaker-speaker dengan maksimum power lebih dari 50 W (keduanya di belakang dan di depan, dengan sebuah impedansi $\mathbf{4} \Omega$ sampai $\mathbf{8} \Omega$ ). Jika maksimum power kurang dari 50 W, ganti pengaturan "AMP GAIN" ("PENAMBAH PENGUAT") untuk mencegah speaker-speaker dari kerusakan (lihat halaman 15 dari BUKU PETUNJUK).
- Untuk mencegah hubungan pendek, tutup ujung-ujung terminal-terminal TIDAK DIGUNAKAN dengan pita isolasi.
- Pendingin menjadi sangat panas setelah digunakan. Hati-hati untuk tidak menyentuhnya ketika memindahkan unit ini.


## TINDAKAN-TINDAKAN PENCEGAHAN pada suplai power dan <br> sambungan-sambungan speaker:

- JANGAN sambungkan ujung-ujung speaker dari kabel power ke baterai mobil; sebaliknya, unit tersebut akan secara serius rusak.
- SEBELUM menyambung ujung-ujung speaker dari kabel power ke speaker-speaker, cek perkabelan speaker dalam mobil anda.


Parts list for installation and connection
The following parts are provided for this unit. If any item is missing, consult your JVC car audio dealer immediately.

## Daftar bagian-bagian untuk pemasangan dan penyambungan

Bagian-bagian berikut disediakan untuk unit ini. Jika ada bagian yang hilang, segera hubungi dealer audio mobil JVC anda.

©
Sleeve
Sleeve
Selongsong

(D)

Trim plate
Plat rapi

(E)

Power cord
Kabel power

 Mur kunci (M5)

(k)

Handles
Pegangan-pegangan

(M) Battery Baterai

## PEMASANGAN (BINGKAI-DALAM DASH)

Ilustrasi berikut menunjukkan sebuah tipe pemasangan. Jika anda mempunyai suatu pertanyaan atau informasi yang diperlukan mengenai alat-alat pemasangan, konsultasikan pada penyalur audio mobil JVC atau sebuah perusahaan yang mensuplai alat-alat.

- Jika anda tidak yakin bagaimana memasang unit ini dengan benar, biarkan dipasang dengan teknisi yang berkualitas.


Removing the unit
Before removing the unit, release the rear section.

Memindahkan unit
Sebelum memindahkan unit, lepaskan seksi belakang.


When using the optional stay / Ketika menggunakan penguat tambahan



Install the unit at an angle of less than $30^{\circ}$ Pasang penerima pada suatu sudut kurang dari $30^{\circ}$.

When installing the unit without using the sleeve / Ketika memasang unit tanpa menggunakan selongsong
In a Toyota car for example, first remove the car radio and install the unit in its place.
Dalam sebuah kereta Toyota misalnya, pertama pindahkan radio mobil dan pasang unit tersebut ke dalam tempatnya.


[^16][^17][^18]
## ELECTRICAL CONNECTIONS

SAMBUNGAN-SAMBUNGAN LISTRIK

A Typical connections / Ciri khas sambungan-sambungan

Before connecting: Check the wiring in the vehicle carefully. Incorrect connection may cause serious damage to this unit.
The leads of the power cord and those of the connector from the car body may be different in color.
1 Connect the colored leads of the power cord in the order specified in the illustration below.
2 Connect the antenna cord.
3 Finally connect the wiring harness to the unit.

Sebelum penyambungan: Cek perkabelan dalam mobil dengan hati-hati. Penyambungan yang tidak benar mungkin menyebabkan kerusakan serius pada unit.
Ujung dari kabel power dan beberapa konektor dari bodi mobil mungkin berbeda dalam warna
1 Sambungkan ujung berwarna dari kabel power dalam urutan spesifikasi pada ilustrasi di bawah.
2 Sambungkan kabel antena.
3 Akhirnya sambungkan dudukan kabel ke unit.


[^19][^20]B Connecting the external amplifier or subwoofer / Penyambungan penguat eksternal atau subwoofer

You can connect an amplifier to upgrade your car stereo system.

- Connect the remote lead (blue with white stripe) to the remote lead of the other equipment so that it can be controlled through this unit.
- Disconnect the speakers from this unit, connect them to the amplifier. Leave the speaker leads of this unit unused.

Anda dapat menyambungkan penguat untuk meningkatkan sistem stereo mobil anda.

- Sambungkan ujung jauh (biru dengan strip putih) ke ujung jauh dari peralatan lain sehingga dapat dikontrol melalui unit ini.
- Putuskan sambungan speaker-speaker dari unit ini, sambungkan ini ke penguat. Biarkan ujung speaker dari unit ini tidak digunakan.



## C Connecting an Apple iPod / Menghubungkan Apple iPod

You can connect an iPod to this unit using the supplied direct connection cable for iPod.
Anda dapat menghubungkan iPod ke unit ini dengan menggunakan kabel sambungan langsung yang disediakan untuk iPod.
 Amerika Serikat dan di negara-negara lain.
*3 Firmly attach the ground wire to the metallic body or to the chassis of the car-to the place uncoated with paint (if coated with paint, remove the paint before attaching the wire). Failure to do so may cause damage to the unit.

## TROUBLESHOOTING

## - The fuse blows.

* Are the red and black leads connected correctly?
- Power cannot be turned on.
* Is the yellow lead connected?
- No sound from the speakers.
* Is the speaker output lead short-circuited?
- Sound is distorted.
* Is the speaker output lead grounded?
* Are the "-" terminals of $L$ and R speakers grounded in common?
- Noise interfere with sounds.
* Is the rear ground terminal connected to the car's chassis using shorter and thicker cords?
- This unit becomes hot.
* Is the speaker output lead grounded?
* Are the "-" terminals of L and R speakers grounded in common?
- This unit does not work at all.
* Have you reset your unit?
*3 Pasangkan dengan kuat kabel tanah ke bodi besi atau ke casis dari mobil-pada tempat yang tidak dilapisi cat (jika dilapisi cat, hilangkan cat sebelum memasang kabel). Kegagalan melakukan ini mungkin menyebabkan kerusakan pada unit tersebut.


## PEMECAHAN MASALAH

- Sekring meledak.
* Apakah ujung-ujung merah dan hitam tersambung dengan benar?
- Power tidak dapat dihidupkan.
* Apakah ujung kuning sudah tersambung?
- Tidak ada suara dari speaker.
* Apakah ujung keluaran speaker terhubung pendek?
- Suara terdistorsi.
* Apakah ujung keluaran speaker sudah ditanahkan?
* Apakah terminal-terminal "-" dari speaker-speaker L dan R sudah ditanahkan secara umum?
- Berisik yang mengganggu suara-suara.
* Apakah terminal tanahan belakang tersambung ke casis mobil menggunakan kabel-kabel terpendek dan tertebal?
- Unit menjadi panas.
* Apakah ujung keluaran speaker sudah ditanahkan?
* Apakah terminal-terminal "-" dari speaker-speaker L dan R sudah ditanahkan secara umum?
- Unit ini tidak bekerja secara keseluruhan.
* Apakah anda sudah reset (memasang kembali) unit anda?


For canceling the display demonstration，see page 6.
取消䐅幕演示功能，參閱第 6 頁。

For installation and connections，refer to the separate manual．
有關安裝和連接方法，分別參閱操作手冊。

## ／｜｜W／｜／／／INSTRUCTIONS使用說明書

Thank you for purchasing a JVC product．
Please read all instructions carefully before operation，to ensure your complete understanding and to obtain the best possible performance from the unit．

## IMPORTANT FOR LASER PRODUCTS

1．CLASS 1 LASER PRODUCT
2．CAUTION：Do not open the top cover．There are no user serviceable parts inside the unit；leave all servicing to qualified service personnel．
3．CAUTION：Visible and／or invisible class 1M laser radiation when open．Do not view directly with optical instruments．
4．REPRODUCTION OF LABEL：CAUTION LABEL，PLACED OUTSIDE THE UNIT．

| CAUTION | ATTENTION | AVISO | VARNING | 注意 | CAUTION |
| :---: | :---: | :---: | :---: | :---: | :---: |
| IBLE AND／OR | RAYONNEMENT LASER | RADIACIÓN LÁSER | SYNLIG OCH／ELER | ここを開くと可 | VIISIBLE AND／OR |
| ISIBLE CLASS 1 | VISIBLE ET／OU | DE CLASE 1M | OSYNLG | 及びまたは不 | INVISIBLE CLASS |
| SER RADIATION | INVISIBLE DE CLASSE | VISIBLE Y／O INVISIBLE | LASERSTRÅLNING， | のクラス1M | LASER RADIATON |
| WHEN OPEN．DO NOT | 1M UNE FOIS OUVERT． | CUANDO ESTÁ | KLASS 1M，NÄR DENNA | しーザー故射が | WHEN OPEN， |
| VIEW DIRECTLY WTH | NE PAS REGARDER | ABIERTO．NO MIRAR | DE ARA ÓPPNAD． | 出ます。 | DO NOT STARE |
| OPTICAL ${ }^{\text {NSTRUME }}$ | DIRECTEMENT AVEC | DIRECTAMENTE | BETRAKTA EJ | 光学装置で直接 | INTO BEAM． |
| EC60825－1：2001 | DES INSTRUMENTS | CON INSTRUMENTAL | STRALEN MED OPTTSKA | 見ないでください。 | FDA 21 CFR |
| （ENG） | OPTIQUES．（FRA） | ÓPTICO．（ESP） | NSTRUMENT．（SWE | （JPN） | （eva） |



## Warning：

If you need to operate the unit while driving，be sure to look around carefully or you may be involved in a traffic accident．

## －Detaching the control panel



Attaching the control panel



Your preset adjustments will also be erased.

- How to forcibly eject a disc

- Be careful not to drop the disc when it ejects.
- If this does not work, reset your unit.

How to use the M MODE button
If you press M MODE, the unit goes into functions mode, then the number buttons and $\mathbf{\Delta} / \boldsymbol{\nabla}$ buttons work as different function buttons.

Ex.: When number button 2 works as MO (monaural) button.


To use these buttons for their original functions again after pressing M MODE, press M MODE again.

- Waiting for about 5 seconds without pressing any of these buttons will automatically cancels the functions mode.


## CONTENTS

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## For safety...

- Do not raise the volume level too much, as this will block outside sounds, making driving dangerous.
- Stop the car before performing any complicated operations.


## Temperature inside the car...

If you have parked the car for a long time in hot or cold weather, wait until the temperature in the car becomes normal before operating the unit.

## Control panel

## Parts identification

## Display window


$1 \boldsymbol{\Delta}$（up）／ $\boldsymbol{\nabla}$（down）buttons
$2 \boldsymbol{\Delta}$（eject）button
3 し／। ATT（standby／on attenuator）button
4 Control dial
5 Remote sensor
DO NOT expose the remote sensor to strong light
（direct sunlight or artificial lighting）．
6 BAND button
7 Loading slot
8 Display window
9 EQ（equalizer）button
10 DISP（display）button
11 （control panel release）button
12 i（iPod）button
$131 \leftrightarrow \boldsymbol{V} />$ 人 buttons
14 SRC（source）button
15 SEL（select）button
16 M MODE button
17 MO（monaural）button
18 SSM（Strong－station Sequential Memory）button

19 Number buttons
20 RPT（repeat）button
21 RND（random）button
22 AUX（auxiliary）input jack
23 Source display／Track number／Folder number／ Time countdown indicator
$24 \operatorname{Tr}$（track）indicator
25 DISC indicator
26 Playback mode／item indicators－RND（random）， －（disc），ᄃ（folder），RPT（repeat）
27 Tuner reception indicators－ST（stereo）， MO（monaural）
28 Sound mode（iEQ：intelligent equalizer）indicators —CLASSIC，HIP HOP，JAZZ，ROCK，POPS，USER
29 LOUD（loudness）indicator
30 EQ（equalizer）indicator
31 Disc information indicators－ TAG（Tag information），（folder），月（track／file）
32 Main display

## Remote controller

## Installing the lithium coin battery

 (CR2025)

## Aim the remote controller directly at the remote

 sensor on the unit. Make sure there is no obstade in between.
## Warning:

- Do not install any battery other than CR2025 or its equivalent; otherwise, it may explode.
- Do not leave the remote controller in a place (such as the dashboard) exposed to direct sunlight for a long time; otherwise, it may explode.
- Store the battery in a place where children cannot reach to avoid the risk of accidents.
- To prevent the battery from over-heating, cracking, or starting a fire:
- Do not recharge, short, disassemble, heat the battery, or dispose of it in a fire.
- Do not leave the battery with other metallic materials.
- Do not poke the battery with tweezers or similar tools.
- Wrap the battery with tape and insulate when throwing away or saving it.


1 山/I/ATT (standby/on/attenuator) button

- Turns the power on if pressed briefly or attenuates the sound when the power is on.
- Turns the power off if pressed and held.
- U (up) / D (down) $\boldsymbol{\nabla}$ buttons
- Changes the FM/AM bands with $\mathbf{\Delta} U$.
- Changes the preset stations with D $\mathbf{\nabla}$.
- Changes the folder of the MP3/WMA discs.
- While listening to an Apple iPod.
- Enters the main menu if pressed and held.
(Now $\boldsymbol{\Delta} / D \nabla / \subset R / F \backsim$ work as the menu selecting buttons.)
- While listening to an iPod (in menu selecting mode):
- Selects an item if pressed D $\boldsymbol{\nabla}$ briefly. (Then, press and hold $D \nabla$ to play back the selection directly.)
- Returns to the previous menu if pressed $\mathbf{\Delta} U$ briefly.
3 VOL - / VOL + buttons
- Adjusts the volume level.

4 SOUND button

- Selects the sound mode (iEQ: intelligent equalizer).
5 SOURCE button
- Selects the source.
$6<R$ (reverse) / $F$ (forward) buttons
- Searches for stations if pressed briefly.
- Fast-forwards or reverses the track if pressed and held.
- Changes the track if pressed briefly.
- While listening to an iPod (in menu selecting mode):
- Accelerated file search: Hold $\boldsymbol{R} / \mathrm{F} \boldsymbol{\text { to fast }}$ skip during song search in the main menu.


## Getting started

Basic operations
(1) Turn on the power.


2

*1 You cannot select "CD" as the playback source if there is no dis in the unit.
*2 "NO IPOD" appears if an iPod is not connected.

## 3 For FM/AM tuner



4 Adjust the volume.


## VOLUME 20

Volume level appears.
(5) Adjust the sound as you want. (See pages 12 and 13.)

## Caution on volume setting:

Discs produce very little noise compared with other sources. Lower the volume before playing a disc to avoid damaging the speakers by the sudden increase of the output level.

To drop the volume in a moment (ATT)
To restore the sound, press the button again.
To turn off the power

## Basic settings

- See also "General settings - PSM" on pages 14 and 15.

1


2


1 Canceling the display demonstrations
Select "DEMO," then "DEMO OFF."
2 Setting the clock
Select "CLOCK HOUR," then adjust the hour. Select "CLOCK MIN" (minute), then adjust the minute.

3 Finish the procedure.


To check the current clock time while the power is turned off


(3) Start searching for a station.


When a station is received, searching stops.
To stop searching, press the same button again.

## To tune in to a station manually

 In step (3) above...1

2) Select a desired station frequency.


When an FM stereo broadcast is hard to receive


Lights up when monaural mode is activated.

## MONO

Reception improves, but the stereo effect will be lost.

To restore the stereo effect, repeat the same procedure. "MONO OFF" appears and the MO indicator goes off.

## Storing stations in memory

You can preset six stations for each band.

## FM station automatic presettingSSM (Strong-station Sequential Memory)

1 Select the FM band (FM1 - FM3) you want to store into.


2


3

"SSM" flashes, then disappears when automatic presetting is over.

Local FM stations with the strongest signals are searched and stored automatically in the FM band.

## Manual presetting

Ex.: Storing the FM station of 92.50 MHz into preset number 4 of the FM1 band.

1


2


### 92.50 MHz

3


Preset number flashes for a while.

## Listening to a preset station

1 band


2 Select the preset station (1-6) you want.

or


To check other information while listening to the radio

| - | Frequency $\rightarrow$ Clock $\rightarrow$ <br> Station name $\rightarrow$ (back to the <br> beginning $)$ |
| :--- | :--- |

* If no title is assigned to a station, "NO NAME" appears. To assign a title to a station, see page 16.


## Disc operations

## Playing a disc in the unit

All tracks will be played repeatedly until you change the source or eject the disc.


To stop play and eject the disc


- Press SRC to listen to another playback source.

| [Hold]To fast-forward or reverse the <br> track |
| :--- | :--- | :--- |
| [Press]To go to the next or previous <br> folder (only for MP3 or WMA to the next or previous <br> discs) |

## To locate a particular track (for CD) or folder (for MP3 or WMA discs) directly

To select a number from $01-06$ :


To select a number from $07-12$ :

[Hold]

- To use direct folder access on MP3/WMA discs, it is required that folders are assigned with 2-digit numbers at the beginning of their folder names$01,02,03$, and so on.

To select a particular track in a folder (for MP3 or WMA discs):


## Other main functions

## Skipping tracks quickly during play

- For MP3 or WMA discs, you can skip tracks within the same folder.
Ex.: To select track 32 while playing a track whose number is a single digit (1 to 9)

1


2


Each time you press the button, you can skip 10 tracks.

- After the last track, the first track will be selected and vice versa.

3


## Prohibiting disc ejection

You can lock a disc in the loading slot.

"EJECT LOCK" flashes on the display.
To cancel the prohibition, repeat the same procedure.

## Changing the display information

## $\longrightarrow$

While playing an audio CD or CD Text

$$
\mathrm{A} \rightarrow \mathrm{~B} \rightarrow \text { Disc title/performer*1 } \rightarrow \text { Track }
$$ title ${ }^{* 1}$ [』] $\rightarrow$ (back to the beginning)

## While playing an MP3 or a WMA track

- When "TAG DISPLAY" is set to "TAG ON" (see page 15)
$A \rightarrow B \rightarrow$ Album name/performer (folder name ${ }^{* 2}$ ) $[$ TAG $\square] \rightarrow$ Track title (file name ${ }^{* 2}$ ) [TAG 月] $\rightarrow$ (back to the beginning)
- When "TAG DISPLAY" is set to "TAG OFF"
$A \rightarrow B \rightarrow$ Folder name $[\sigma$ ] File name
[ $\boldsymbol{\Omega}] \rightarrow$ (back to the beginning)

A : Current track number with the elapsed playing time
B : Current track number with the clock time
[ ] : Corresponding indicator lights up on the display.
*1 If the current disc is an audio CD, "NO NAME" appears.
*2 If an MP3/WMA file does not have Tag information, folder name and file name appear. In this case, the TAG indicator will not light up.

## Selecting the playback modes

You can use only one of the following playback modes at a time.

1 mode
$M$
2 Select your desired playback mode.

[ ]: Corresponding indicator lights up on the display.

## iPod operations

You can play songs in an Apple iPod by connecting it with the supplied direct connection cable for iPod. You can control playback from the unit or from your iPod.

- Disconnecting the iPod will stop playback. Press SRC to listen to another playback source.


## Caution:

- Avoid using the iPod if it might hinder your safety while driving.
- Make sure all important data has been backed up to avoid losing the data.
- For connection, see the Installation/Connection Manual (separate volume).
- For details, refer also to the manual supplied for your iPod.


## (1) Connect an iPod.



## If an iPod has been connected...



To directly select "IPOD" as the source while listening to another source or when the power is turned off.

Playback starts automatically from where it had been paused previously.

## (2) Adjust the volume.


(3) Adjust the sound as you want. (See pages 12 and 13.)

## To control playback from your iPod


"IPOD MODE" appears on the display.

- Press and hold this button again to control playback from the unit. "HEAD MODE" appears on the display.


## Playback control from the unit

|  | [Press] Go to the next or previous track |
| :---: | :---: |
|  | [Hold] Fast-forward or reverse the track during playback Fast-skip the menu items of the main menu |
|  | [Hold] Enter the main menu (see the right column). |
| $\bullet$ | [Press] Pause/resume playback. |
|  |  |
| [Press] Go to the top menu of "PLAYLIST," "ARTIST," "ALBUM," "SONG," "PODCAST," or "GENRE" in the main menu (see the right column). |  |
|  |  |
| [Hold] Go to the top menu of "COMPOSER" or "AUDIOBOOK" in the main menu (see the right column). |  |

Selecting a track from the menu

## 1 Enter the main menu.



Now the $\boldsymbol{\Delta} / \boldsymbol{\nabla} / 1<\boldsymbol{\text { V }} / \longrightarrow$ 人 $/$ number buttons work as the menu selecting buttons.

## 2 Select the desired menu.



$$
\begin{aligned}
& \text { PLAYLIST } \leftrightarrow \text { ARTIST } \leftrightarrow \text { ALBUM } \leftrightarrow \text { SONG } \\
& \leftrightarrow \text { PODCAST } \leftrightarrow \text { GENRE } \leftrightarrow \text { COMPOSER } \leftrightarrow \\
& \text { AUDIOBOOK } \leftrightarrow \text { (back to the beginning) }
\end{aligned}
$$

- Pressing the number buttons can directly select the desired menu (see the left column for details).


## 3 Confirm the selection.



To move back to the previous menu, press $\mathbf{\Delta}$.

- Holding the button will start play back the selected item directly.
- If a track is selected, playback starts automatically.
- If the selected item has another layer, you will enter the layer. Repeat steps $\mathbf{2}$ and $\mathbf{3}$ until the desired track is played.
- Accelerated file search: Hold $1 \ll \boldsymbol{V} \| \boldsymbol{\lambda}$ to fast skip during song search in the main menu.


## To exit from menu selecting mode

To check other information while listening to an iPod


Current track number with the elapsed playing time $\rightarrow$ Current track number with the clock time $\rightarrow$ Track title ${ }^{*} \rightarrow$ Album name/ performer* $\rightarrow$ (back to the beginning)

* When "TAG DISPLAY" is set to "TAG OFF," file name and folder name appear.


## Sound adjustments

You can select a preset sound mode suitable to the music genre (iEQ: intelligent equalizer).


## Adjusting the sound

You can adjust the sound characteristics to your preference.

- The adjustment you make will be stored for the currently selected sound mode (iEQ) including "USER."


Indication, [Range]
FADER*2, [R06 to F06]
Adjust the front and rear speaker balance.
BALANCE*3, [L06 to R06]
Adjust the left and right speaker balance.

Indication, [Range]
LOUD*4 (loudness), [LOUD ON or LOUD OFF]
Boost low and high frequencies to produce a well-balanced sound at a low volume level.

SUBWOOFER ${ }^{* 1}$, [00 to 08, initial: 04]
Adjust the subwoofer output level.
VOL ADJ (volume adjust), [ -05 to +05 , initial: 00] Adjust the volume level of each source (except FM), in relation to the FM volume level. The volume level will automatically increase or decrease when you change the source.

- Before making an adjustment, select the source you want to adjust.

VOLUME, [ 00 to 50 or 00 to 30 ]*5
Adjust the volume.
*1 Displayed only when "L/O MODE" is set to "SUB.W" (see page 15).
*2 If you are using a two-speaker system, set the fader level to "00."
*3 This adjustment will not affect the subwoofer output.
*4 The adjustment made (LOUD ON/LOUD OFF) will be applied to all sound modes.
*5 Depending on the amplifier gain control setting. (See page 15 for details.)

## Storing your own sound mode

You can adjust the sound modes and store your own adjustments in memory.

## 1 Select a sound mode.


2 Enter the adjustment mode.


3 Select a sound characteristic.


4 Adjust the sound elements of the selected sound characteristic.
1 Adjust the frequency.


2 Adjust the level.


3 Adjust the quality slope (Q).


| Sound elements | Range/selectable items |  |  |
| :---: | :---: | :---: | :---: |
|  | BASS | MID | TRE |
| Frequency | 60 Hz <br> 80 Hz <br> 100 Hz <br> 120 Hz | $\begin{aligned} & 500 \mathrm{~Hz} \\ & 1.0 \mathrm{kHz} \\ & 1.5 \mathrm{kHz} \\ & 2.5 \mathrm{kHz} \end{aligned}$ | 7.5 kHz <br> 10.0 kHz <br> 12.5 kHz <br> 15.0 kHz |
| Level | $\begin{aligned} & -06 \text { to } \\ & +06 \end{aligned}$ | $\begin{aligned} & -06 \text { to } \\ & +06 \end{aligned}$ | $\begin{aligned} & -06 \text { to } \\ & +06 \end{aligned}$ |
| Q (Q-slope) | $\begin{aligned} & \text { Q0.5 } \\ & \text { Q1.0 } \\ & \text { Q1.5 } \\ & \text { Q2.0 } \end{aligned}$ | $\begin{aligned} & Q 0.75 \\ & Q 1.0 \\ & Q 1.25 \\ & Q 1.5 \end{aligned}$ | $\begin{aligned} & \text { Q0.75 } \\ & \text { Q1.25 } \end{aligned}$ |

BASS: Bass MID:Mid-range TRE:Treble
5 The adjustment made will be stored automatically. Repeat steps 3 and 4 to adjust other sound characteristics.

## General settings - PSM

You can change PSM (Preferred Setting Mode) items listed in the table below and on page 15.

1


2 Select a PSM item.


## 3 Adjust the PSM item selected.



4 Repeat steps 2 and 3 to adjust other PSM items if necessary.

## 5 Finish the procedure.



| Indications | Item $\qquad$ : Initial) | Setting, [reference page] |
| :---: | :---: | :---: |
| DEMO <br> Display demonstration | - DEMO ON <br> - DEMO OFF | : The display demonstration will be activated automatically if no operation is done for about 20 seconds, [6]. <br> : Cancels. |
| CLOCK DISP* ${ }^{*}$ <br> Clock display | - CLOCK ON <br> - CLOCK OFF | : The clock time is shown on the display at all times when the power is turned off. <br> : Cancels; pressing DISP will show the clock time for about 5 seconds when the power is turned off, [6]. |
| CLOCK HOUR Hour adjustment | 1-12 | [Initial: 1 (1:00)], [6]. |
| CLOCK MIN <br> Minute adjustment | 00-59 | [Initial: 00 (1:00)], [6]. |
| DIMMER <br> Dimmer | $\begin{aligned} & \cdot \mathrm{ON} \\ & \cdot \mathrm{OFF} \end{aligned}$ | : Dims the display and button illumination. <br> : Cancels. |

[^21]| Indications | Item <br> (__: Initial) | Setting, [reference page] |
| :--- | :--- | :--- |
| AUDIOBOOKS*2 <br> Speed control of <br> "Audiobook" | - NORMAL <br> - SLOWER | : You can select the playback speed of the "Audiobook" sound file in <br> your iPod. |
| SCROLL*3 <br> Scroll | - ONCE |  |
| - AUTO | : Scrolls the displayed information once. <br> : Repeats scrolling (at 5-second intervals). <br> : Cancels. <br> - Pressing DISP for more than one second can scroll the display <br> regardless of the setting. |  |
| L/O MODE <br> Line output mode | - REAR | : Select if the REAR LINE 0UT terminals are used for connecting the |
| speakers (through an external amplifier). |  |  |

[^22]
## Other external component operations

You can connect an external component to the AUX (auxiliary) input jack on the control panel.

3.5 mm stereo mini plug (not supplied)
(1)


2 Turn on the connected component and start playing the source.
(3) Adjust the volume.


4 Adjust the sound as you want. (See pages 12 and 13.)

To check other information while listening to an external component


## Ititle assignment

You can assign names to 30 station frequencies (FM and AM) and up to 8 characters for each station name.

1 Select FM/AM.


2 Show the title entry screen.


3 Assign a title.
1 Select a character.


2 Move to the next (or previous) character position.


3 Repeat steps 1 and 2 until you finish entering the title.

4 Finish the procedure.


To erase the entire title In step 2 above...


## Maintenance

## How to clean the connectors

Frequent detachment will deteriorate the connectors. To minimize this possibility, periodically wipe the connectors with a cotton swab or cloth moistened with alcohol, being careful not to damage the connectors.


## Moisture condensation

Moisture may condense on the lens inside the unit in the following cases:

- After starting the heater in the car.
- If it becomes very humid inside the car.

Should this occur, the unit may malfunction. In this case, eject the disc and leave the unit turned on for a few hours until the moisture has evaporated.

## How to handle discs

When removing a disc from its case, press down the center holder of the case and lift the disc out, holding it by the edges.

- Always hold the disc by the edges. Do not touch its recording surface.


When storing a disc in its case, gently insert the disc around the center holder (with the printed surface facing up).

- Make sure to store discs in cases after use


## To keep discs clean

A dirty disc may not play correctly. If a disc does become dirty, wipe it with a soft cloth in a straight line from center
 to edge.

- Do not use any solvents (for example, conventional record cleaner, spray, thinner, benzine, etc.) to clean discs..


## To play new discs

New discs may have some rough spots around the inner and outer edges. If such a disc is used, this unit may reject the disc.
To remove these rough spots, rub the edges with a pencil or ball-point pen, etc.

## Do not use the following discs:

Single CD ( 8 cm disc)


Sticker and sticker residue
 Stick-on label


Unusual shape


## More about this unit

## Basic operations

## Turning on the power

- By pressing SRC (source) or i (iPod) button on the unit, you can also turn on the power. If the source is ready, playback also starts.


## Turning off the power

- If you turn off the power while listening to a track, playback will start from where it had been stopped previously next time you turn on the power.


## General

- If you change the source while listening to a disc or an iPod, playback stops.
Next time you select "CD" or "IPOD" as the playback source, playback will start from where it had been stopped/paused previously.

Continued on the next page

- After ejecting a disc or disconnecting an iPod, "NO DISC" or "NO IPOD" appears and you cannot operate some of the buttons. Insert another disc, connect an iPod, or press SRC to select another playback source.


## Tuner operations

## Storing stations in memory

- During SSM search...
- All previously stored stations are erased and the stations are stored anew.
- Received stations are preset in №. 1 (lowest frequency) to №. 6 (highest frequency).
- When SSM is over, the station stored in No. 1 will be automatically tuned in.
- When storing a station manually, the previously preset station is erased when a new station is stored in the same preset number.


## Disc operations

## Caution for DualDisc playback

- The Non-DVD side of a "DualDisc" does not comply with the "Compact Disc Digital Audio" standard. Therefore, the use of Non-DVD side of a DualDisc on this product may not be recommended.


## General

- This unit has been designed to reproduce CDs/CD Texts, and CD-Rs (Recordable)/CD-RWs (Rewritable) in audio CD (CD-DA), MP3 and WMA formats.
- When a disc is inserted upside down, "PLEASE" and "EJECT" appear alternately on the display. Press $\boldsymbol{\Delta}$ to eject the disc.
- MP3 and WMA "tracks" (words "file" and "track" are used interchangeably) are recorded in "folders."
- While fast-forwarding or reversing on an MP3 or WMA disc, you can only hear intermittent sounds.


## Playing a CD-R or CD-RW

- Use only "finalized" CD-Rs or CD-RWs.
- This unit can only play back files of the same type as those which are detected first if a disc includes both audio CD (CD-DA) files and MP3/WMA files.
- This unit can play back multi-session discs; however, unclosed sessions will be skipped while playing.
- Some CD-Rs or CD-RWs may not play back on this unit because of their disc characteristics, or for the following reasons:
- Discs are dirty or scratched.
- Moisture condensation has occurred on the lens inside the unit.
- The pickup lens inside the unit is dirty.
- The files on the CD-R/CD-RW are written using the "Packet Write" method.
- There are improper recording conditions (missing data, etc.) or media conditions (stained, scratched, warped, etc.).
- CD-RWs may require a longer readout time since the reflectance of CD-RWs is lower than that of regular CDs.
- Do not use the following CD-Rs or CD-RWs:
- Discs with stickers, labels, or a protective seal stuck to the surface.
- Discs on which labels can be directly printed by an ink jet printer.
Using these discs under high temperature or high humidity may cause malfunctions or damage to the unit.


## Playing an MP3/WMA disc

- This unit can play back MP3/WMA files with the extension code <.mp3> or <.wma> (regardless of the letter case-upper/lower).
- This unit can show the names of albums, artists (performer), and Tag (Version 1.0, 1.1, 2.2, 2.3, or 2.4) for MP3 files and for WMA files.
- This unit can display only one-byte characters. No other characters can be correctly displayed.
- This unit can play back MP3/WMA files meeting the conditions below:
- Bit rate: 8 kbps — 320 kbps
- Sampling frequency:
$48 \mathrm{kHz}, 44.1 \mathrm{kHz}, 32 \mathrm{kHz}$ (for MPEG-1)
24 kHz, 22.05 kHz, 16 kHz (for MPEG-2)
- Disc format: IS0 9660 Level 1/Level 2, Romeo, Joliet, Windows long file name
- The maximum number of characters for file/folder names vary depending on the disc format used (includes 4 extension characters-<.mp3> or <.wma>).
- ISO 9660 Level 1: up to 12 characters
- ISO 9660 Level 2: up to 31 characters
- Romeo: up to 128 characters
- Joliet: up to 64 characters
- Windows long file name: up to 128 characters
- This unit can recognize a total of 512 files, 255 folders, and 8 hierarchical levels.
- This unit can play back files recorded in VBR (variable bit rate).
Files recorded in VBR have a discrepancy in the elapsed time display, and do not show the actual elapsed time. In particular, this difference becomes noticeable after performing the search function.
- This unit cannot play back the following files:
- MP3 files encoded in MP3i and MP3 PRO format.
- MP3 files encoded in an inappropriate format.
- MP3 files encoded with Layer 1/2.
- WMA files encoded in lossless, professional, and voice format.
- WMA files which are not based upon Windows Media ${ }^{\oplus}$ Audio.
- WMA files copy-protected with DRM.
- Files which have data such as AIFF, ATRAC3, etc.
- The search function works but search speed is not constant.


## Ejecting a disc

- If the ejected disc is not removed within 15 seconds, it is automatically inserted into the loading slot again to protect it from dust. Playback starts automatically.


## iPod operations

- Controllable iPod:
- iPod mini
- iPod G4
- iPod photo
- iPod nano (1st \& 2nd Generation)
- iPod with video (5th Generation)
- Update your iPod to the latest software version before using it with this unit.
- When you turn on this unit, the iPod is charged through this unit.
- While connecting an iPod with Video:
- No video shows on the iPod's display or the external monitor (only the audio part is available).
- It is not possible to browse video files on the "Video" menu. (If you connect the iPod during the playback or pausing of a video file, resuming playback will not work.)
- iPod shuffle cannot be used with this unit.
- You can control the iPod from this unit when "JVC" or " $\sqrt{ }$ " appears on the iPod display after connection.
- The song order displayed on the selection menu of this unit may differ from that of the iPod.
- If playback is stopped, select a track from the selection menu or press BAND to playback the same track again.
- The text information may not be displayed correctly:
- Some characters such as accented letters cannot be shown correctly on the display.
- Communication between the iPod and the unit is not stable.
- If the text information includes more than 11 characters, it scrolls on the display. This unit can display up to 64 characters.


## Notice:

When operating an iPod, some operations may not be performed correctly or as intended. In this case, visit the following JVC web site:
[http://www.jvc-victor.co.jp/english/car/](http://www.jvc-victor.co.jp/english/car/)

## General settings—PSM

- If you change the "AMP GAIN" setting from "HIGH POWER" to "LOW POWER" while the volume level is set higher than "VOLUME 30," the unit automatically changes the volume level to "VOLUME 30."

| Sound mode | Preset value |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | BASS (bass) |  |  | MID (mid-range) |  |  | TRE (treble) |  |  | $\begin{array}{\|c} \text { LOUD } \\ \text { (loudness) } \end{array}$ |
|  | Freq. | Level | Q | Freq. | Level | Q | Freq. | Level | Q |  |
| USER | 60 Hz | 00 | Q1.0 | 1.0 kHz | 00 | Q1.25 | 7.5 kHz | 00 | Q1.25 | OFF |
| ROCK | 100 Hz | +03 | Q1.0 | 1.0 kHz | 00 | Q1.25 | 10.0 kHz | +02 | Q1.25 |  |
| CLASSIC | 80 Hz | +01 | Q1.0 | 1.0 kHz | 00 | Q1.25 | 10.0 kHz | +03 | Q1.25 |  |
| POP | 100 Hz | +02 | Q1.0 | 1.0 kHz | +01 | Q1.25 | 10.0 kHz | +02 | Q1.25 |  |
| HIP HOP | 60 Hz | +04 | Q1.0 | 1.0 kHz | -02 | Q1.0 | 10.0 kHz | +01 | Q1.25 |  |
| JAZZ | 80 Hz | +03 | 01.0 | 1.0 kHz | 00 | Q1.25 | 10.0 kHz | +03 | Q1.25 |  |

Freq.: Frequency Q: Q-slope

## Troubleshooting

What appears to be trouble is not always serious. Check the following points before calling a service center.

| Symptoms |  | Remedies/Causes |
| :---: | :---: | :---: |
|  | - Sound cannot be heard from the speakers. | - Adjust the volume to the optimum level. <br> - Check the cords and connections. |
|  | - The unit does not work at all. | Reset the unit (see page 3). |
| $\sum_{k} \sum_{\mathbb{Z}}$ | - SSM automatic presetting does not work. | Store stations manually. |
|  | - Static noise while listening to the radio. | Connect the antenna firmly. |
|  | - Disc cannot be played back. | Insert the disc correctly. |
|  | - CD-R/CD-RW cannot be played back. <br> - Tracks on the CD-R/CD-RW cannot be skipped. | - Insert a finalized CD-R/CD-RW. <br> - Finalize the CD-R/CD-RW with the component which you used for recording. |
|  | - Disc can neither be played back nor ejected. | - Unlock the disc (see page 9). <br> - Eject the disc forcibly (see page 3). |
|  | - Disc sound is sometimes interrupted. | - Stop playback while driving on rough roads. <br> - Change the disc. <br> - Check the cords and connections. |
|  | - "NO DISC" appears on the display. <br> - "PLEASE" and "EJECT" appear alternately on the display. | Insert a playable disc into the loading slot. |

## Symptoms

Remedies/Causes

|  | - Disc cannot be played back. | - Use a disc with MP3/WMA tracks recorded in a format compliant with ISO 9660 Level 1, Level 2, Romeo, or Joliet. <br> - Add the extension code <.mp3> or <.wma> to the file names. |
| :---: | :---: | :---: |
|  | - Noise is generated. | Skip to another track or change the disc. (Do not add the extension code <.mp3> or <.wma> to non-MP3 or WMA tracks.) |
|  | - A longer readout time is required ("READING" keeps flashing on the display). | Do not use too many hierarchical levels and folders. |
|  | - Tracks do not play back in the order you have intended them to play. | The playback order is determined when the files are recorded. |
|  | - The elapsed playing time is not correct. | This sometimes occurs during playback. This is caused by how the tracks are recorded on the disc. |
|  | - The correct characters are not displayed (e.g. album name). | This unit can only display letters (upper case), numbers, and a limited number of symbols. |
|  | - The iPod does not turn on or does not work. | - Check the connecting cable and its connection. <br> - Update the firmware version. <br> - Charge the battery. |
|  | - The sound is distorted. | Deactivate the equalizere either on the unit or the iPod. |
|  | - "NO IPOD" appears on the display. | - Check the connecting cable and its connection. <br> - Charge the battery. |
|  | - Playback stops. | The headphones are disconnected during playback. Turn off the unit's power and turn it on again. |
|  | - No sound can be heard when connecting an iPod nano. | - Disconnect the headphones from the iPod nano. <br> - Update the firmware version of the iPod nano. |
|  | - "NO FILES" appears on the display. | No tracks are stored. Import tracks to the iPod. |
|  | - The iPod's controls do not work after disconnecting from this unit. | Reset the iPod. |
|  | - "CANNOT PLAY" appears on the display. | Communication error occurs. <br> Disconnect and connect the cable to the iPod again. |

- Microsoft and Windows Media are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- iPod is a trademark of Apple Inc., registered in the U.S. and other countries.


## Specifications

## AUDIO AMPLIFIER SECTION

| Maximum Power Output: | Front/Rear: | 50 W per channel |
| :---: | :---: | :---: |
| Continuous Power Output (RMS): | Front/Rear: | 19 W per channel into $4 \Omega, 40 \mathrm{~Hz}$ to 20000 Hz at no more than $0.8 \%$ total harmonic distortion. |
| Load Impedance: |  | $4 \Omega$ ( $4 \Omega$ to $8 \Omega$ allowance) |
| Tone Control Range: | Bass: | $\pm 12 \mathrm{~dB}(60 \mathrm{~Hz}, 80 \mathrm{~Hz}, 100 \mathrm{~Hz}, 120 \mathrm{~Hz})$ |
|  | Mid-range: | $\pm 12 \mathrm{~dB}(500 \mathrm{~Hz}, 1 \mathrm{kHz}, 1.5 \mathrm{kHz}, 2.5 \mathrm{kHz})$ |
|  | Treble: | $\pm 12 \mathrm{~dB}$ (7.5 kHz, $10 \mathrm{kHz}, 12.5 \mathrm{kHz}, 15 \mathrm{kHz}$ ) |
|  | Q (Q-slope): | Q0.5 to Q2.0 |
| Frequency Response: |  | 40 Hz to 20000 Hz |
| Signal-to-Noise Ratio: |  | 70 dB |
| Line-Out Level/Impedance: |  | $2.5 \mathrm{~V} / 20 \mathrm{k} \Omega$ load (full scale) |
| Subwoofer-Out Level/Impedance: |  | $2.5 \mathrm{~V} / 20 \mathrm{k} \Omega$ load (full scale) |
| Output Impedance: |  | $1 \mathrm{k} \Omega$ |
| Other Terminal: |  | AUX (auxiliary) input jack, iPod connector |

## TUNER SECTION

| Frequency Range: | FM: | 87.5 MHz to 108.0 MHz |
| :--- | :--- | :--- |
|  | AM: | 531 kHz to 1602 kHz |
| FM Tuner | Usable Sensitivity: | $11.3 \mathrm{dBf}(1.0 \mu \mathrm{~V} / 75 \Omega)$ |
|  | 50 dB Quieting Sensitivity: | $16.3 \mathrm{dBf}(1.8 \mu \mathrm{~V} / 75 \Omega)$ |
|  | Alternate Channel Selectivity $(400 \mathrm{kHz}):$ | 65 dB |
|  | Frequency Response: | 40 Hz to 15000 Hz |
|  | Stereo Separation: | 30 dB |
| AM Tuner | Sensitivity: | $20 \mu \mathrm{~V}$ |
|  | Selectivity: | 35 dB |

CD PLAYER SECTION

| Type: |  |
| :--- | :--- |
| Signal Detection System: | Compact disc player |
| Number of Channels: | Non-contact optical pickup <br> (semiconductor laser) |
| Frequency Response: | 2 channels (stereo) |
| Dynamic Range: | 5 Hz to 20000 Hz |
| Signal-to-Noise Ratio: | 96 dB |
| Wow and Flutter: | Max. Bit Rate: |
| MP3 Decoding Format: <br> (MPEG1/2 Audio Layer 3) | 38 dB |
| WMA (Windows Media |  |
| Decoding Format: |  |$\quad$ Max. Bit Rate: $\quad 320$ kbps | Lestan measurable limit |
| :--- |

## GENERAL

| Power Requirement: | Operating Voltage: | DC $14.4 \mathrm{~V}(11 \mathrm{~V}$ to 16 V allowance) |
| :--- | :--- | :--- |
| Grounding System: | Negative ground |  |
| Allowable Operating Temperature: | $0^{\circ} \mathrm{C}$ to $+40^{\circ} \mathrm{C}$ |  |
| Dimensions (W $\times \mathrm{H} \times \mathrm{D}):$ (approx.) | Installation Size: | $182 \mathrm{~mm} \times 52 \mathrm{~mm} \times 160 \mathrm{~mm}$ |
|  | Panel Size: | $188 \mathrm{~mm} \times 58 \mathrm{~mm} \times 6 \mathrm{~mm}$ |
| Mass: | 1.3 kg (excluding accessories) |  |

Design and specifications are subject to change without notice.

# Having TROUBLE with operation？ Please reset your unit 

## Refer to page of How to reset your unit

## 在操作時遇到碩煩了？ <br> 請重置本機 <br> 參閱如何重置本機之頁

## Jvc

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1107DTSMDTJEIN

# JVC <br> KD－PDR45 <br> Installation／Connection Manual安裝／連接手冊 

## ENGLISH

This unit is designed to operate on 12 V DC，NEGATIVE ground electrical systems．If your vehicle does not have this system，a voltage inverter is required，which can be purchased at JVC car audio dealers．

## 中文

本機僅可使用直流 12 V ，負極接地的電源系統。如果您的車輛沒有這一電源系統，則需要一個電厭變換器，可以在 JVC 汽車音響分銷商處買到。

## 警告

為防止短路，建議在安裝本機之前，拔開電池的負極，並把所有電路都連接好。
－安裝完畢後務必將本機的地線重新接至車身。
注意：

- 把保險絲更換為額定負荷值的保險絲。如果保險絲經常燒壞，請向 JVC 汽車音響分銷商詢問。
- 後置和前置揚聲器的最大輸入功率應大於 50 W ，其阻抗為 $4 \Omega-8 \Omega$ 。如果最大功率小於 50 W ，請調校＂AMP GAIN＂設定值，以防止揚聲器損壞。（參閱使用說明書的第 15 頁。）
- 為防止電源短路，請用絕緣帶包住未使用電線的端子。
- 本機使用後，散熱片會很熱。因此，在移出本機時，小心不要觸摸散熱片。

Replace the fuse with one of the specified rating．If the fuse blows frequently，consult your JVC car audio dealer．
－It is recommended to connect speakers with a maximum power of more than 50 W （both at the rear and at the front，with an impedance of $\mathbf{4} \Omega$ to $\mathbf{8} \Omega$ ）．If the maximum power is less than 50 W ，change＂AMP GAIN＂setting to prevent the speakers from being damaged（see page 15 of the INSTRUCTIONS）．
－To prevent short circuits，cover the terminals of the UNUSED leads with insulating tape．
－The heat sink becomes very hot after use．Be careful not to touch it when removing this unit．

## WARNINGS

To prevent short circuits，we recommend that you disconnect the battery＇s negative terminal and make al electrical connections before installing the unit
Be sure to ground this unit to the car＇s chassis again after installation．

## Notes



Heat sink／散熱片

## PRECAUTIONS on power supply and speaker connections：

－DO NOT connect the speaker leads of the power cord to the car battery；otherwise，the unit will be seriously damaged．
－BEFORE connecting the speaker leads of the power cord to the speakers，check the speaker wiring in your car．

## 電源和揚聲器接線注意事項：

切勿把揚聲器導線接頭接至電池，否則本機將會嚴重損壞。
－在把揚聲器導線接頭接至揚聲器之前，檢查您汽車上的揚聲器線路。


## Parts list for installation and connection

The following parts are provided for this unit．If any item is missing，consult your JVC car audio dealer immediately


硬盒／控制面板


Direct connection cable for iPod iPod 直接連接電纜

${ }^{(1)}$

${ }^{(D)}$
Trim plate
裝飾框


用於安裝和連接的零組件清單
下列零組件隨本機提供。若有任何遺漏，立刻咨詢您的 JVC 汽車音響經銷商。

（1）
Moun
橡膠防震熱

${ }^{\circledR}$
Handles板條型把手

（L）
Remote controller搖控器
 Battery
電池


RM－RK50
（M）


## Removing the unit

Before removing the unit，release the rear section．

When using the optional stay／若選用支撐架



Install the unit at an angle of less than $30^{\circ}$將本機安裝在少於 $30^{\circ}$ 的角度。

拆卸本機
在拆卸本機前，應將本機後部的固定和連接部分祘開。

## 3

Insert the two handles，then pull them as illustrated so that the unit can be removed．按圖所示，將兩片板條型把手插人卡槽，然後輕穩地從兩側向外拉兩片把手，本機隨之拉出。


When installing the unit without using the sleeve／若不使用外套機殻安裝本機
In a Toyota car for example，first remove the car radio and install the unit in its place．
以豐田牌（TOYOTA）汽車為例：首先取出汽車收音機，然後將本機裝入其空出的位置。


Note ：When installing the unit on the mounting bracket，make sure to use the 8 mm －long screws．If longer screws are used， they could damage the unit
注意 ：把本機安裝在托座上時，務必使用 8 mm 長的螺綵釘。如使用過長的螺絲釘，會損壞本機。

[^23][^24]
## ELECTRICAL CONNECTIONS

電路連接
A Typical connections／典型的接線方法

Before connecting：Check the wiring in the vehicle carefully．Incorrect connection may cause serious damage to this unit．
The leads of the power cord and those of the connector from the car body may be different in color．
Connect the colored leads of the power cord in the order specified in the illustration below．
2 Connect the antenna cord．
3 Finally connect the wiring harness to the unit

接線前：仔細檢查汽車內的線路。不正確的接線會導致本機嚴重損壞。
電源線的引線和車身的連接器引線在顏色上可能有所不同。

1 依照下圖所示之次序連接電源線的顏色導線。
2 將天線的電線連接起來。
3 最後，把配線束的插頭插在本機上。


[^25][^26]You can connect an amplifier to upgrade your car stereo system．
－Connect the remote lead（blue with white stripe）to the remote lead of the other equipment so that it can be controlled through this unit．
Disconnect the speakers from this unit，connect them to the amplifier．Leave the speaker leads of this unit unused．

您可以連接功率放大器以提昇尊車的音響系統。
－將遙控導線（藍色帶有白色條紋）和其他裝置上的遙控導線連接起來，以便可以經由本機進行遙控。
－將揚聲器和本機拔開，再接上功率放大器。將本機的揚聲器接線放置不用。


C Connecting an Apple iPod／連接 Apple iPod
You can connect an iPod to this unit using the supplied direct connection cable for iPod．您可以使用附帶的 iPod 直接連接電繮將 iPod 和本機連接起來。
iPod is a trademark of Apple Inc．，registered in the U．S and other countries
iPod 是 Apple Inc．（蘋果公司）在美國及其他國家註冊的商標。

＊3 Firmly attach the ground wire to the metallic body or to the chassis of the car－to the place uncoated with paint （if coated with paint，remove the paint before attaching the wire）．Failure to do so may cause damage to the unit．

## ＊3 將地線與金屬車體或者汽車底盤緊密連接，連接處應該沒有被油漆覆蓋（如果已塗上油漆，在連接電

線前，將油漆刮去）。如果不這樣做，可能會損壞本機。
## 故障排除

－保險納恎閧。
＊榆查紅色導缐接頭和黑色導線接頭是否接䌊正碓？
－電源不能接通。
＊檢查黄色導線接頍是否接上？
－揚聲器没有聲音。
＊檢查揚罄器輸出道缐接頭是否智路？
－聲音失真。

＊檢查揚聲器的左（L）－右（R）端子的負極＂- ＂是否共同接地？
－噪音干嘻音響。
＊後接地端子與車身是否使用較短和較厚的電線連接？
－本機發熱。
＊檢树揚鷘器輸出端子是否接地？
＊檢查揚聲器的左（ L ），右（ R ）端子的負極＂- ＂是否共同接地？
－本機完全不能操作。
＊您是否已經重置您的機組？


For canceling the display demonstration, see page 6.
Para cancelar la demostración en pantalla, consulte la página 6.

For installation and connections, refer to the separate manual. Para la instalación y las conexiones, refiérase al manual separado.

## /|V/V//// manual de instrucciones

For customer Use:
Enter below the Model
No. and Serial No. which are located on the top or bottom of the cabinet. Retain this information for future reference.
Model No.
Serial №.

Please read all instructions carefully before operation，to ensure your complete understanding and to obtain the best possible performance from the unit．

## INFORMATION（For U．S．A．）

This equipment has been tested and found to comply with the limits for a Class B digital device，pursuant to Part 15 of the FCC Rules．These limits are designed to provide reasonable protection against harmful interference in a residential installation．This equipment generates，uses，and can radiate radio frequency energy and，if not installed and used in accordance with the instructions，may cause harmful interference to radio communications． However，there is no guarantee that interference will not occur in a particular installation．If this equipment does cause harmful interference to radio or television reception，which can be determined by turning the equipment off and on，the user is encouraged to try to correct the interference by one or more of the following measures：
－Reorient or relocate the receiving antenna．
－Increase the separation between the equipment and receiver．
－Connect the equipment into an outlet on a circuit different from that to which the receiver is connected．
－Consult the dealer or an experienced radio／TV technician for help．

## Caution：

Changes or modifications not approved by JVC could void the user＇s authority to operate the equipment．

## IMPORTANT FOR LASER PRODUCTS

1．CLASS 1 LASER PRODUCT
2．CAUTION：Do not open the top cover．There are no user serviceable parts inside the unit；leave all servicing to qualified service personnel．
3．CAUTION：（For U．S．A．）Visible and／or invisible class II laser radiation when open．Do not stare into beam．
（For Canada）Visible and／or invisible class 1M laser radiation when open．Do not view directly with optical instruments．
4．REPRODUCTION OF LABEL：CAUTION LABEL，PLACED OUTSIDE THE UNIT．

| CAUTION | ATIENTION | AVISO | VARNING | 注意 | ION |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ble and／or | RAYONNEMENT LASER | RADIACIÓN LÁSER | SYNLG OCH／EUER | ここを開くと可 | VIIIBLE AND／OR |
| INVISIBLE CLASS 1／ | VISIBLE ET／OU | DE CLASE 11 | OSYNLG | 及び／たは不可視 | INVISIBIE CLASS |
| LASER RADIATION | INVISIBLE DE CLASSE | VISIBLE Y／O INVISIBLE | LASERSTRALNING， | のクラス1M | SER RADIA |
| EN OPEN，DO NOT | 1 M UNE FOIS OUVERT． | CUANDO ESTÁ | KLASS 1M，NĀR DENNA | しーザー㬵射が | WHEN OPEN． |
| W DIRECTLY WTH | NE PAS REGARDER | ABIERTO．NO MIRAR | DE AR ȦPPNAD． | 出ます。 | DO NOT STARE |
| OPTICALINSTRUMENTS． | DIRECTEMENT AVEC | DIRECTAMENTE | BETRAKTA EJ | 光学装䍙て直接 | INTO BEAM， |
| C60825－1：2001 <br> （ENG） | DES INSTRUMENTS OPTIQUES．（FRA） | CON INSTRUMENTAL OPTICO． （ESP） | STRALEN MED OPTSKA | 見ないでください。 | PDA 21 CFR |



## Warning：

If you need to operate the unit while driving，be sure to look around carefully or you may be involved in a traffic accident．

## For safety．．．

－Do not raise the volume level too much，as this will block outside sounds，making driving dangerous．
－Stop the car before performing any complicated operations．

## Temperature inside the car．．．

If you have parked the car for a long time in hot or cold weather，wait until the temperature in the car becomes normal before operating the unit．

## . How to reset your unit



- Your preset adjustments will also be erased.

「 How to forcibly eject a disc


- Be careful not to drop the disc when it ejects.
- If this does not work, reset your unit.


## How to use the M MODE button

If you press M MODE, the unit goes into functions mode, then the number buttons and $\mathbf{\Delta} / \nabla$ buttons will work as different function buttons.

Ex.: When number button 2 works as MO (monaural) button.


To use these buttons for their original functions again after pressing M MODE, press M MODE again.

- Waiting for about 5 seconds without pressing any of these buttons will automatically cancels the functions mode.
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$\Gamma$ Detaching the control panel


## - Attaching the control panel



## Control panel



Installing the lithium coin battery (CR2025)



For USA-California Only:
This product contains a CR Coin Cell Lithium Battery which contains Perchlorate Material—special handling may apply.
See www.dtsc.ca.gov/hazardouswaste/perchlorate

## Aim the remote controller directly at the remote sensor on the unit. Make sure there is no obstacle in between.

## Warning:

- Do not install any battery other than CR2025 or its equivalent; otherwise, it may explode.
- Do not leave the remote controller in a place (such as the dashboard) exposed to direct sunlight for a long time; otherwise, it may explode.
- Store the battery in a place where children cannot reach to avoid the risk of accidents.
- To prevent the battery from over-heating, cracking, or starting a fire:
- Do not recharge, short, disassemble, heat the battery, or dispose of it in a fire.
- Do not leave the battery with other metallic materials.
- Do not poke the battery with tweezers or similar tools.
- Wrap the battery with tape and insulate when throwing away or saving it.


## Main elements and features



1 J/I/ATT (standby/on/attenuator) button

- Turns the power on if pressed briefly or attenuates the sound when the power is on.
- Turns the power off if pressed and held.
$2 \boldsymbol{\Delta} U($ up $) / D($ down $) ~$ buttons
- Changes the FM/AM bands with $\mathbf{\Delta} U$.
- Changes the preset stations with D $\mathbf{\nabla}$.
- Changes the folder of the MP3/WMA discs.
- While listening to an Apple iPod.
- Enters the main menu if pressed and held.
 selecting buttons.)
- While listening to an iPod (in menu selecting mode):
- Returns to the previous menu if pressed $\boldsymbol{\Delta U}$ briefly.
- Selects an item if pressed D $\boldsymbol{\nabla}$ briefly. (Then, press and hold $D \boldsymbol{\nabla}$ to play back the selection directly.)
3 VOL - / VOL + buttons
- Adjusts the volume level.
- Selects the sound mode (iEQ: intelligent equalizer).

5 SOURCE button

- Selects the source.
$6<R$ (reverse) $/ F$ (forward) buttons
- Searches for stations if pressed briefly.
- Fast-forwards or reverses the track if pressed and held.
- Changes the track if pressed briefly.
- While listening to an iPod (in menu selecting mode):
- Accelerated file search: Hold $\langle R / F>$ to fast skip during song search in the main menu.


## Getting started

Basic operations
(1) Turn on the power.

(2)

*1 You cannot select "CD" as the playback source if there is no disc in the unit.
*2 "NO IPOD" appears if an iPod is not connected.

## (3) For FM/AM tuner



4 Adjust the volume.


## VOLUME 20

Volume level appears.
5 Adjust the sound as you want. (See pages 12 and 13.)

## Caution on volume setting:

Discs produce very little noise compared with other sources. Lower the volume before playing a disc to avoid damaging the speakers by the sudden increase of the output level.

| To drop the volume in a <br> moment (ATT) <br> To restore the sound, press <br> the button again. |  |
| :--- | :--- |
| To turn off the power | ATT |

## Basic settings

- See also "General settings - PSM" on pages 14 and 15.

1


2


1 Canceling the display demonstrations Select "DEMO," then "DEMO OFF."
Setting the clock
Select "CLOCK HOUR," then adjust the hour.
Select "CLOCK MIN" (minute), then adjust the minute.

## 3 Finish the procedure.



To check the current clock time while the power is turned off


## Radio operations

## 1



Lights up when receiving an FM stereo broadcast with sufficient signal strength.
88.30MHz

## 3 Start searching for a station.



When a station is received, searching stops. To stop searching, press the same button again.

## To tune in to a station manually

In step (3) above...
1


2 Select a desired station frequency.


When an FM stereo broadcast is hard to receive


Reception improves, but the stereo effect will be lost.

To restore the stereo effect, repeat the same procedure. "MONO OFF" appears and the MO indicator goes off.

## Storing stations in memory

You can preset six stations for each band.
FM station automatic presettingSSM (Strong-station Sequential Memory)
1 Select the FM band (FM1 - FM3) you want to store into.


2


3


"SSM" flashes, then disappears when automatic presetting is over.

Local FM stations with the strongest signals are searched and stored automatically in the FM band.

## Manual presetting

Ex.: Storing the FM station of 92.50 MHz into preset number 4 of the FM1 band.
$1 \stackrel{\text { BAND }}{\bullet} \stackrel{\text { FM1 }}{\rightarrow} \rightarrow$ FM2 $\rightarrow$ FM3 -
2


3


Preset number flashes for a while.

## Listening to a preset station

1 вano
(-) $\stackrel{\mathrm{FM} 1 \rightarrow \mathrm{FM} 2 \rightarrow \mathrm{FM} 3}{\rightleftarrows}$
2 Select the preset station (1-6) you want.

or


To check other information while listening to the radio

| - |
| :--- |
| DISP | | Frequency $\rightarrow$ Clock $\rightarrow$ |
| :--- |
| Station name $\rightarrow$ (back to the |
| beginning) |

[^27]
## Disc operations

## Playing a disc in the unit

All tracks will be played repeatedly until you change the source or eject the disc.


To stop play and eject the disc

[Hold] To fast-forward or reverse the
track

## To locate a particular track (for CD) or folder (for MP3 or WMA discs) directly

To select a number from $01-06$ :


To select a number from $07-12$ :

[Hold]
－To use direct folder access on MP3／WMA discs，it is required that folders are assigned with 2－digit numbers at the beginning of their folder names－ $01,02,03$ ，and so on．

To select a particular track in a folder （for MP3 or WMA discs）：

## Other main functions

## Skipping tracks quickly during play

－For MP3 or WMA discs，you can skip tracks within the same folder．
Ex．：To select track 32 while playing a track whose number is a single digit（1 to 9 ）

1

$M$

2


Each time you press the button，you can skip 10 tracks．
－After the last track，the first track will be selected and vice versa．

3


## Prohibiting disc ejection

You can lock a disc in the loading slot．

［Hold］

＂EJECT LOCK＂flashes on the display．
To cancel the prohibition，repeat the same procedure．

A $\rightarrow$ B $\rightarrow$ Disc title／performer＊1 $\rightarrow$ Track title ${ }^{* 1}$［』］$\rightarrow$（back to the beginning）

## Changing the display information



## While playing an audio CD or CD Text

## While playing an MP3 or a WMA track

－When＂TAG DISPLAY＂is set to＂TAG ON＂ （see page 15）
$A \rightarrow B \rightarrow$ Album name／performer（folder name ${ }^{* 2}$ ）［TAG［ ］$\rightarrow$ Track title（file name ${ }^{* 2}$ ）［TAG 月］$\rightarrow$（back to the beginning）
－When＂TAG DISPLAY＂is set to＂TAG OFF＂
$A \rightarrow B \rightarrow$ Folder name［ $\boldsymbol{\sigma}$ ］$\rightarrow$ File name ［ر］$\rightarrow$（back to the beginning）

A ：Current track number with the elapsed playing time
B ：Current track number with the clock time
［ ］：Corresponding indicator lights up on the display．
＊1 If the current disc is an audio CD，＂NO NAME＂appears．
＊2 If an MP3／WMA file does not have Tag information，
folder name and file name appear．In this case，the
TAG indicator will not light up．

## Selecting the playback modes

You can use only one of the following playback modes at a time.

1


2 Select your desired playback mode.
Repeat play
Mode $\quad$ Plays repeatedly

TRACK RPT : The current track. [RPT]
FOLDER RPT*: All tracks of the current folder.

$$
[\tau R P T]
$$

RPT OFF : Cancels.


## iPod operations

You can play songs in an Apple iPod by connecting it with the supplied direct connection cable for iPod. You can control playback from the unit or from your iPod.

- Disconnecting the iPod will stop playback. Press SRC to listen to another playback source.


## Caution:

- Avoid using the iPod if it might hinder your safety while driving.
- Make sure all important data has been backed up to avoid losing the data.
- For connection, see the Installation/Connection Manual (separate volume).
- For details, refer also to the manual supplied for your iPod.


## (1) Connect an iPod.



If an iPod has been connected...
 To directly select "IPOD" as the source while listening to another source or when the power is turned off.

Playback starts automatically from where it had been paused previously.

## 2 Adjust the volume.



Adjust the sound as you want. (See pages 12 and 13.)

## To control playback from your iPod


"IPOD MODE" appears on the display.

- Press and hold this button again to control playback from the unit. "HEAD MODE" appears on the display.


## Playback control from the unit

|  | [Press] Go to the next or previous track |
| :---: | :---: |
|  | [Hold] Fast-forward or reverse the track during playback Fast-skip the menu items of the main menu |
|  | [Hold] Enter the main menu (see the right column). |
| BAND | [Press] Pause/resume playback. |
|  |  |
| [Press] Go to the top menu of "PLAYLIST," "ARTIST," "ALBUM," "SONG," "PODCAST," or "GENRE" in the main menu (see the right column). |  |
|  |  |
| [Hold] Go to the top menu of "COMPOSER" or "AUDIOBOOK" in the main menu (see the right column). |  |

## Selecting a track from the menu

## 1 Enter the main menu.



Now the $\mathbf{\Delta} / \mathbf{\nabla} /|\boldsymbol{\iota} \boldsymbol{V} / \boldsymbol{\Delta}| \boldsymbol{A} /$ number buttons work as the menu selecting buttons.

## 2 Select the desired menu.



$$
\begin{aligned}
& \text { PLAYLIST } \leftrightarrow \text { ARTIST } \leftrightarrow \text { ALBUM } \leftrightarrow \text { SONG } \\
& \leftrightarrow \text { PODCAST } \leftrightarrow \text { GENRE } \leftrightarrow \text { COMPOSER } \\
& \leftrightarrow \text { AUDIOBOOK } \leftrightarrow \text { (back to the beginning) }
\end{aligned}
$$

- Pressing the number buttons can directly select the desired menu (see the left column for details).


## 3 Confirm the selection.



- Holding the button will start play back the selected item directly.
- If a track is selected, playback starts automatically.
- If the selected item has another layer, you will enter the layer. Repeat steps $\mathbf{2}$ and $\mathbf{3}$ until the desired track is played.
- Accelerated file search: Hold $1 \ll \boldsymbol{V} \gg \boldsymbol{1}$ to fast skip during song search in the main menu.


## To exit from menu selecting mode

* The menu selecting mode will be canceled:
- If no operations are performed for about 10 seconds.
- When you confirm the selection of a track.
- Pressing some other buttons such as DISP, SEL, MODE, or EQ.


## Selecting the playback modes

## 1 <br> 

2 Select your desired playback mode.

| - Repeat play |  |
| :---: | :---: |
| Mode Pl | Playback functions (as on iPod) |
| ONE RPT : Sa | : Same as "Repeat One." [RPT] |
| ALL RPT : Sa | : Same as "Repeat All." [ ©RPT] |
| RPT OFF : C | Cancels. |
| - Random play | m play |
| Mode | Playback functions (as on iPod) |
| SONG RND : | : Same as "Shuffle Songs." [RND] |
| ALBUM RND*: | *: Same as "Shuffle Albums." <br> [RNDT] |
| RND OFF : | : Cancels. |
| * Functions only if you select "ALL" in "ALBUMS" of the main menu. |  |

[ ]:Corresponding indicator lights up on the display.

## To check other information while listening

## to an iPod



Current track number with the elapsed playing time $\rightarrow$ Current track number with the clock time $\rightarrow$ Track title ${ }^{*} \rightarrow$ Album name/ performer ${ }^{*} \rightarrow$ (back to the beginning)

* When "TAG DISPLAY" is set to "TAG OFF" (see page 15), file name and folder name appear.


## Sound adjustments

You can select a preset sound mode suitable to the music genre (iEQ: intelligent equalizer).


## Adjusting the sound

You can adjust the sound characteristics to your preference.

- The adjustment you make will be stored for the currently selected sound mode (iEQ) including "USER."

1


2


Indication, [Range]
FADER ${ }^{* 2}$, [R06 to F06]
Adjust the front and rear speaker balance.
BALANCE*3, [L06 to R06]
Adjust the left and right speaker balance.

## Indication, [Range]

LOUD*4 (loudness), [LOUD ON or LOUD OFF]
Boost low and high frequencies to produce a well-balanced sound at a low volume level.

SUBWOOFER*1, [00 to 08, initial: 04] Adjust the subwoofer output level.

VOL ADJ (volume adjust), [ -05 to +05 , initial: 00]
Adjust the volume level of each source (except FM), in relation to the FM volume level. The volume level will automatically increase or decrease when you change the source.

- Before making an adjustment, select the source you want to adjust.

VOLUME, [00 to 50 or 00 to 30$]^{* 5}$
Adjust the volume.
*1 Displayed only when "L/O MODE" is set to "SUB.W" (see page 15).
*2 If you are using a two-speaker system, set the fader level to " 00. ."
*3 This adjustment will not affect the subwoofer output.
*4 The adjustment made (LOUD ON/LOUD OFF) will be applied to all sound modes.
*5 Depending on the amplifier gain control setting. (See page 15 for details.)

## Storing your own sound mode

You can adjust the sound modes and store your own adjustments in memory.

1
Select a sound mode.


2 Enter the adjustment mode.


3 Select a sound characteristic.


$$
\text { BASS } \longleftrightarrow \text { MID } \longleftrightarrow \text { TRE }
$$

4 Adjust the sound elements of the selected sound characteristic.
1 Adjust the frequency.


2 Adjust the level.


3 Adjust the quality slope (Q).


| Sound elements | Range/selectable items |  |  |
| :---: | :---: | :---: | :---: |
|  | BASS | MID | TRE |
| Frequency | 60 Hz <br> 80 Hz <br> 100 Hz <br> 120 Hz | $\begin{aligned} & 500 \mathrm{~Hz} \\ & 1.0 \mathrm{kHz} \\ & 1.5 \mathrm{kHz} \\ & 2.5 \mathrm{kHz} \end{aligned}$ | 7.5 kHz <br> 10.0 kHz <br> 12.5 kHz <br> 15.0 kHz |
| Level | $\begin{aligned} & -06 \text { to } \\ & +06 \end{aligned}$ | $\begin{aligned} & -06 \text { to } \\ & +06 \end{aligned}$ | $\begin{aligned} & -06 \text { to } \\ & +06 \end{aligned}$ |
| Q (Q-slope) | $\begin{aligned} & Q 0.5 \\ & Q 1.0 \\ & Q 1.5 \\ & Q 2.0 \end{aligned}$ | $\begin{array}{\|l} \text { Q0.75 } \\ \text { Q1.0 } \\ \text { Q1.25 } \\ \text { Q1.5 } \end{array}$ | $\begin{aligned} & \mathrm{Q} 0.75 \\ & \mathrm{Q} 1.25 \end{aligned}$ |

BASS: Bass MID: Mid-range TRE: Treble

## 5 The adjustment made will be stored automatically. Repeat steps 3 and 4 to adjust other sound characteristics.

## General settings - PSM

You can change PSM (Preferred Setting Mode) items listed in the table below and on page 15.

1


2 Select a PSM item.


## 3 Adjust the PSM item selected.



4 Repeat steps 2 and 3 to adjust other PSM items if necessary.

## 5 Finish the procedure.



| Indications | Item <br> (__: Initial) | Setting, [reference page] |
| :---: | :---: | :---: |
| DEMO <br> Display demonstration | - DEMO ON <br> - DEMO OFF | : The display demonstration will be activated automatically if no operation is done for about 20 seconds, [6]. <br> : Cancels. |
| CLOCK DISP** <br> Clock display | - CLOCK ON <br> - CLOCK OFF | : The clock time is shown on the display at all times when the power is turned off. <br> : Cancels; pressing DISP will show the clock time for about 5 seconds when the power is turned off, [6]. |
| CLOCK HOUR <br> Hour adjustment | 1-12 | [Initial: 1 (1:00)], [6]. |
| CLOCK MIN <br> Minute adjustment | 00-59 | [Initial: 00 (1:00)], [6]. |
| DIMMER <br> Dimmer | $\begin{aligned} & \cdot \mathrm{ON} \\ & \cdot \mathrm{OFF} \end{aligned}$ | : Dims the display and button illumination. <br> : Cancels. |

[^28]| Indications | Item <br> (__: Initial) | Setting, [reference page] |
| :---: | :---: | :---: |
| AUDIOBOOKS*2 <br> Speed control of "Audiobook" | - NORMAL <br> - FASTER <br> - SLOWER | : You can select the playback speed of the "Audiobook" sound file in your iPod. |
| SCROLL*3 <br> Scroll | $\begin{aligned} & \text { - ONCE } \\ & \text { - AUTO } \\ & \text { - OFF } \end{aligned}$ | : Scrolls the displayed information once. <br> : Repeats scrolling (at 5-second intervals). <br> : Cancels. <br> - Pressing DISP for more than one second can scroll the display regardless of the setting. |
| L/O MODE <br> Line output mode | - REAR <br> - SUB.W | : Select if the REAR LINE OUT terminals are used for connecting the speakers (through an external amplifier). <br> : Select if the REAR LINE OUT terminals are used for connecting a subwoofer (through an external amplifier). |
| SUB.W FREQ*4 <br> Subwoofer cutoff frequency | - LOW <br> - MID <br> - HIGH | : Frequencies lower than 90 Hz are sent to the subwoofer. <br> : Frequencies lower than 135 Hz are sent to the subwoofer. <br> : Frequencies lower than 180 Hz are sent to the subwoofer. |
| TAG DISPLAY <br> Tag display | - TAG ON <br> - TAG OFF | : Shows the Tag information while playing MP3/WMA tracks, [9]. <br> : Cancels. |
| AMP GAIN <br> Amplifier gain control | - LOW POWER <br> - HIGH POWER | : VOLUME 00 - VOLUME 30. (Select this if the maximum power of the speaker is less than 50 W to avoid damaging the speaker.) <br> : VOLUME 00 - VOLUME 50. |
| IF BAND Intermediate frequency band | - AUTO <br> - WIDE | : Increases the tuner selectivity to reduce interference noise between close stations. (The stereo effect may be lost.) <br> : Subject to interference noise from adjacent stations, but the sound quality will not be degraded and the stereo effect will remain. |
| AREA <br> Tuner channel interval | - AREA US <br> - AREA EU <br> - AREA SA | : When using in North/Central/South America. AM/FM intervals are set to $10 \mathrm{kHz} / 200 \mathrm{kHz}$. <br> : When using in any other areas. AM/FM intervals are set to $9 \mathrm{kHz} /$ 50 kHz ( 100 kHz during auto search). <br> : When using in South American countries where FM interval is 100 kHz . AM interval is set to 10 kHz . |

[^29]
## Other external component

## operations

You can connect an external component to the AUX (auxiliary) input jack on the control panel.
 mini plug (not supplied)


2 Turn on the connected component and start playing the source.

3 Adjust the volume.

(4) Adjust the sound as you want. (See pages 12 and 13.)

To check other information while listening to an external component


## Ititle assignment

You can assign names to 30 station frequencies (FM and AM) and up to 8 characters for each station name.

1 Select FM/AM.


2 Show the title entry screen.


3 Assign a title.
Select a character.


2 Move to the next (or previous) character position.

(3) Repeat steps 1 and 2 until you finish entering the title.

4 Finish the procedure.


## To erase the entire title

In step 2 above...


## Maintenance

## How to clean the connectors

Frequent detachment will deteriorate the connectors. To minimize this possibility, periodically wipe the connectors with a cotton swab or cloth moistened with alcohol, being careful not to damage the connectors.


## Moisture condensation

Moisture may condense on the lens inside the unit in the following cases:

- After starting the heater in the car.
- If it becomes very humid inside the car.

Should this occur, the unit may malfunction. In this case, eject the disc and leave the unit turned on for a few hours until the moisture has evaporated.

## How to handle discs

## When removing a disc from its

 case, press down the center holder of the case and lift the disc out, holding it by the edges.- Always hold the disc by the edges. Do not touch its recording surface.
When storing a disc in its case, gently insert the disc around the center holder (with the printed surface facing up).
- Make sure to store discs in cases after use.


## To keep discs clean

A dirty disc may not play correctly. If a disc does become dirty, wipe it with a soft cloth in a straight line from center


## More about this unit

## Basic operations

## Turning on the power

- By pressing SRC (source) or i (iPod) button on the unit, you can also turn on the power. If the source is ready, playback also starts.


## Turning off the power

- If you turn off the power while listening to a track, playback will start from where it had been stopped previously next time you turn on the power.


## To play new discs

New discs may have some rough spots around the inner and outer edges. If such a disc is used, this unit may reject the disc.
To remove these rough spots, rub the edges with a pencil or ball-point pen, etc.
 to edge.

- Do not use any solvents (for example, conventional record cleaner, spray, thinner, benzine, etc.) to clean discs.


## General

- If you change the source while listening to a disc or an iPod, playback stops.
Next time you select "CD" or "IPOD" as the playback source, playback will start from where it had been stopped/paused previously.
- After ejecting a disc or disconnecting an iPod, "NO DISC" or "NO IPOD" appears and you cannot operate some of the buttons. Insert another disc, connect an iPod, or press SRC to select another playback source.


## Tuner operations

## Storing stations in memory

- During SSM search...
- All previously stored stations are erased and the stations are stored anew.
- Received stations are preset in №. 1 (lowest frequency) to No. 6 (highest frequency).
- When SSM is over, the station stored in No. 1 will be automatically tuned in.
- When storing a station manually, the previously preset station is erased when a new station is stored in the same preset number.


## Disc operations

## Caution for DualDisc playback

- The Non-DVD side of a "DualDisc" does not comply with the "Compact Disc Digital Audio" standard. Therefore, the use of Non-DVD side of a DualDisc on this product may not be recommended.


## General

- This unit has been designed to reproduce CDs/CD Texts, and CD-Rs (Recordable)/CD-RWs (Rewritable) in audio CD (CD-DA), MP3 and WMA formats.
- When a disc is inserted upside down, "PLEASE" and "EJECT" appear alternately on the display. Press $\boldsymbol{\Delta}$ to eject the disc.
- MP3 and WMA "tracks" (words "file" and "track" are used interchangeably) are recorded in "folders."
- While fast-forwarding or reversing on an MP3 or WMA disc, you can only hear intermittent sounds.


## Playing a CD-R or CD-RW

- Use only "finalized" CD-Rs or CD-RWs.
- This unit can only play back files of the same type as those which are detected first if a disc includes both audio CD (CD-DA) files and MP3/WMA files.
- This unit can play back multi-session discs; however, unclosed sessions will be skipped while playing.
- Some CD-Rs or CD-RWs may not play back on this unit because of their disc characteristics, or for the following reasons:
- Discs are dirty or scratched.
- Moisture condensation has occurred on the lens inside the unit.
- The pickup lens inside the unit is dirty.
- The files on the CD-R/CD-RW are written using the "Packet Write" method.
- There are improper recording conditions (missing data, etc.) or media conditions (stained, scratched, warped, etc.).
- CD-RWs may require a longer readout time since the reflectance of CD-RWs is lower than that of regular CDs.
- Do not use the following CD-Rs or CD-RWs:
- Discs with stickers, labels, or a protective seal stuck to the surface.
- Discs on which labels can be directly printed by an ink jet printer.
Using these discs under high temperature or high humidity may cause malfunctions or damage to the unit.


## Playing an MP3/WMA disc

- This unit can play back MP3/WMA files with the extension code <.mp3> or <.wma> (regardless of the letter case-upper/lower).
- This unit can show the names of albums, artists (performer), and Tag (Version 1.0, 1.1, 2.2, 2.3, or 2.4) for MP3 files and for WMA files.
- This unit can display only one-byte characters. No other characters can be correctly displayed.
- This unit can play back MP3/WMA files meeting the conditions below:
- Bit rate: 8 kbps — 320 kbps
- Sampling frequency:

48 kHz, 44.1 kHz, 32 kHz (for MPEG-1)
24 kHz, $22.05 \mathrm{kHz}, 16 \mathrm{kHz}$ (for MPEG-2)

- Disc format: ISO 9660 Level 1/Level 2, Romeo, Joliet, Windows long file name
- The maximum number of characters for file/folder names vary depending on the disc format used (includes 4 extension characters-<.mp3> or <.wma>).
- ISO 9660 Level 1: up to 12 characters
- ISO 9660 Level 2: up to 31 characters
- Romeo: up to 128 characters
- Joliet: up to 64 characters
- Windows long file name: up to 128 characters
- This unit can recognize a total of 512 files, 255 folders, and 8 hierarchical levels.
- This unit can play back files recorded in VBR (variable bit rate).
Files recorded in VBR have a discrepancy in the elapsed time display, and do not show the actual elapsed time. In particular, this difference becomes noticeable after performing the search function.
- This unit cannot play back the following files:
- MP3 files encoded in MP3i and MP3 PRO format.
- MP3 files encoded in an inappropriate format.
- MP3 files encoded with Layer 1/2.
- WMA files encoded in lossless, professional, and voice format.
- WMA files which are not based upon Windows Media ${ }^{\oplus}$ Audio.
- WMA files copy-protected with DRM.
- Files which have data such as AIFF, ATRAC3, etc.
- The search function works but search speed is not constant.


## Ejecting a disc

- If the ejected disc is not removed within 15 seconds, it is automatically inserted into the loading slot again to protect it from dust. Playback starts automatically.


## iPod operations

- Controllable iPod:
- iPod mini
- iPod G4
- iPod photo
- iPod nano (1st \& 2nd Generation)
- iPod with video (5th Generation)
- Update your iPod to the latest software version before using it with this unit.
- When you turn on this unit, the iPod is charged through this unit.
- While connecting an iPod with Video:
- No video shows on the iPod's display or the external monitor (only the audio part is available).
- It is not possible to browse video files on the "Video" menu. (lf you connect the iPod during the playback or pausing of a video file, resuming playback will not work.)
- iPod shuffle cannot be used with this unit.
- You can control the iPod from this unit when "JVC" or " $\downarrow$ " appears on the iPod display after connection.
- The song order displayed on the selection menu of this unit may differ from that of the iPod.
- If playback is stopped, select a track from the selection menu or press BAND to playback the same track again.
- The text information may not be displayed correctly:
- Some characters such as accented letters cannot be shown correctly on the display.
- Communication between the iPod and the unit is not stable.
- If the text information includes more than 11 characters, it scrolls on the display. This unit can display up to 64 characters.


## Notice:

When operating an iPod, some operations may not be performed correctly or as intended. In this case, visit the following JVC web site:
[http://www.jvc-victor.co.jp/english/car/](http://www.jvc-victor.co.jp/english/car/)

## General settings—PSM

- If you change the "AMP GAIN" setting from "HIGH POWER" to "LOW POWER" while the volume level is set higher than "VOLUME 30," the unit automatically changes the volume level to "VOLUME 30."

Preset value setting for each sound mode

| Sound mode | Preset value |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | BASS (bass) |  |  | MID (mid-range) |  |  | TRE (treble) |  |  | $\begin{aligned} & \text { LOUD } \\ & \text { (loudness) } \end{aligned}$ |
|  | Freq. | Level | Q | Freq. | Level | Q | Freq. | Level | Q |  |
| USER | 60 Hz | 00 | 01.0 | 1.0 kHz | 00 | Q1.25 | 7.5 kHz | 00 | Q1.25 | OFF |
| ROCK | 100 Hz | +03 | Q1.0 | 1.0 kHz | 00 | Q1.25 | 10.0 kHz | +02 | Q1.25 |  |
| CLASSIC | 80 Hz | +01 | 01.0 | 1.0 kHz | 00 | 01.25 | 10.0 kHz | +03 | 01.25 |  |
| POPS | 100 Hz | +02 | 01.0 | 1.0 kHz | +01 | Q1.25 | 10.0 kHz | +02 | Q1.25 |  |
| HIP HOP | 60 Hz | +04 | 01.0 | 1.0 kHz | -02 | Q1.0 | 10.0 kHz | +01 | Q1.25 |  |
| JAZZ | 80 Hz | +03 | 01.0 | 1.0 kHz | 00 | Q1.25 | 10.0 kHz | +03 | Q1.25 |  |

Freq.: Frequency $\mathrm{Q}: \mathrm{Q}$-slope

## Troubleshooting

What appears to be trouble is not always serious. Check the following points before calling a service center.

| Symptoms |  | Remedies/Causes |
| :---: | :---: | :---: |
|  | - Sound cannot be heard from the speakers. | - Adjust the volume to the optimum level. <br> - Check the cords and connections. |
|  | - The unit does not work at all. | Reset the unit (see page 3). |
| $\sum_{\sum 1} \sum_{1}$ | - SSM automatic presetting does not work. | Store stations manually. |
|  | - Static noise while listening to the radio. | Connect the antenna firmly. |
|  | - Disc cannot be played back. | Insert the disc correctly. |
|  | - CD-R/CD-RW cannot be played back. <br> - Tracks on the CD-R/CD-RW cannot be skipped. | - Insert a finalized CD-R/CD-RW. <br> - Finalize the CD-R/CD-RW with the component which you used for recording. |
|  | - Disc can neither be played back nor ejected. | - Unlock the disc (see page 9). <br> - Eject the disc forcibly (see page 3). |
|  | - Disc sound is sometimes interrupted. | - Stop playback while driving on rough roads. <br> - Change the disc. <br> - Check the cords and connections. |
|  | - "NO DISC" appears on the display. <br> - "PLEASE" and "EJECT" appear alternately on the display. | Insert a playable disc into the loading slot. |

## Symptoms

## Remedies/Causes

| - Disc cannot be played back. | - Use a disc with MP3/WMA tracks recorded in a format <br> compliant with ISO 9660 Level 1, Level 2, Romeo, or <br> Joliet. <br> - Add the extension code <.mp3> or <.wma> to the <br> file names. |
| :--- | :--- |
| - Noise is generated. | Skip to another track or change the disc. (Do not add the <br> extension code <.mp3> or <.wma> to non-MP3 or <br> WMA tracks.) |

## Specifications

| AUDIO AMPLIFIER SECTION |  |  |
| :---: | :---: | :---: |
| Power Output: | 20 W RMS $\times 4$ Channels at $4 \Omega$ and $\leq 1 \%$ THD $+N$ |  |
| Signal-to-Noise Ratio: | 80 dBA (reference: 1 W into $4 \Omega$ ) | 200 |
| Load Impedance: |  | $4 \Omega$ ( $4 \Omega$ to $8 \Omega$ allowance) |
| Tone Control Range: | Bass: | $\pm 12 \mathrm{~dB}(60 \mathrm{~Hz}, 80 \mathrm{~Hz}, 100 \mathrm{~Hz}, 120 \mathrm{~Hz})$ |
|  | Mid-range: | $\pm 12 \mathrm{~dB}(500 \mathrm{~Hz}, 1 \mathrm{kHz}, 1.5 \mathrm{kHz}, 2.5 \mathrm{kHz})$ |
|  | Treble: | $\pm 12 \mathrm{~dB}$ ( $7.5 \mathrm{kHz}, 10 \mathrm{kHz}, 12.5 \mathrm{kHz}, 15 \mathrm{kHz}$ ) |
|  | Q (Q-slope): | Q0.5 to Q2.0 |
| Frequency Response: |  | 40 Hz to 20000 Hz |
| Line-Out Level/Impedance: |  | $2.5 \mathrm{~V} / 20 \mathrm{k} \Omega$ load (full scale) |
| Subwoofer-Out Level/Impedance: |  | $2.5 \mathrm{~V} / 20 \mathrm{k} \Omega$ load (full scale) |
| Output Impedance: |  | $1 \mathrm{k} \Omega$ |
| Other Terminal: |  | AUX (auxiliary) input jack, iPod connector |


| TUNER SECTION |  |  |  |
| :---: | :---: | :---: | :---: |
| Frequency Range: | FM: | with channel interval set to 100 kHz or 200 kHz | 87.5 MHz to 107.9 MHz |
|  |  | with channel interval set to 50 kHz | 87.5 MHz to 108.0 MHz |
|  | AM: | with channel interval set to 10 kHz | 530 kHz to 1710 kHz |
|  |  | with channel interval set to 9 kHz | 531 kHz to 1602 kHz |
| FM Tuner | Usable Sensitivity: |  | $11.3 \mathrm{dBf}(1.0 \mu \mathrm{~V} / 75 \Omega)$ |
|  | 50 dB Quieting Sensitivity: |  | $16.3 \mathrm{dBf}(1.8 \mu \mathrm{~V} / 75 \Omega)$ |
|  | Alternate Channel Selectivity ( 400 kHz ): |  | 65 dB |
|  | Frequency Response: |  | 40 Hz to 15000 Hz |
|  | Stereo Separation: |  | 35 dB |
| AM Tuner | Sensitivity: |  | $20 \mu \mathrm{~V}$ |
|  | Selectivity: |  | 35 dB |

## CD PLAYER SECTION

| Type: |  |
| :--- | :--- |
| Signal Detection System: | Compact disc player <br> (semiconductor laser) |
| Number of Channels: | 2 channels (stereo) |
| Frequency Response: | 5 Hz to 20000 Hz |
| Dynamic Range: | 96 dB |
| Signal-to-Noise Ratio: | Max. Bit Rate: |
| Wow and Flutter: | 98 dB |
| MP3 Decoding Format: <br> (MPEG1/2 Audio Layer 3) | Less than measurable limit |
| WMA (Windows Media® Audio) <br> Decoding Format: | Max. Bit Rate: |

## GENERAL

| Power Requirement: | Operating Voltage: | DC 14.4V (11 V to 16 V allowance) |
| :---: | :---: | :---: |
| Grounding System: |  | Negative ground |
| Allowable Operating Temperature: |  | $0^{\circ} \mathrm{C}$ to $+40^{\circ} \mathrm{C}\left(32^{\circ} \mathrm{F}\right.$ to $\left.104^{\circ} \mathrm{F}\right)$ |
| Dimensions ( $\mathrm{W} \times \mathrm{H} \times \mathrm{D}$ ): ( ( pprox.) | Installation Size: | $\begin{aligned} & 182 \mathrm{~mm} \times 52 \mathrm{~mm} \times 160 \mathrm{~mm} \\ & \left(7-3 / 16^{\prime \prime} \times 2-1 / 16^{\prime \prime} \times 6-5 / 16^{\prime \prime}\right) \end{aligned}$ |
|  | Panel Size: | $\begin{aligned} & 188 \mathrm{~mm} \times 58 \mathrm{~mm} \times 6 \mathrm{~mm} \\ & \left(7-7 / 16^{\prime \prime} \times 2-5 / 16^{\prime \prime} \times 1 / 4^{\prime \prime}\right) \end{aligned}$ |
| Mass: |  | 1.3 kg (2.9 lbs) (excluding accessories) |

Design and specifications are subject to change without notice.

If a kit is necessary for your car, consult your telephone directory for the nearest car audio speciality shop.

- Microsoft and Windows Media are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- iPod is a trademark of Apple Inc., registered in the U.S. and other countries.


## Having TROUBLE with operation? Please reset your unit <br> Refer to page of How to reset your unit Still having trouble??

USA ONLY

$$
\begin{gathered}
\text { Call 1-800-252-5722 } \\
\text { http://www.jvc.com } \\
\text { We can help you! }
\end{gathered}
$$

## Jvc

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## ENGLISH

## PREPARATIONS

You need the installation kits which corresponds to your car.

- Mark all the check boxes ( $\sqrt{\square}$ ) to make sure you have follow the instructions and the listed parts.


## Check the battery system in your car



12 V DC, NEGATIVE ground

## Prepare this before installation



## TROUBLESHOOTING

- The fuse blows.
* Are the red and black leads connected correctly?
- Power cannot be turned on.
* Is the yellow lead connected?
- No sound from the speakers.
* Is the speaker output lead short-circuited?
- Sound is distorted.
* Is the speaker output lead grounded?
* Are the "-" terminals of L and R speakers grounded in common?
- Noise interfere with sounds.
* Is the rear ground terminal connected to the car's chassis using shorter and thicker cords?
- This unit becomes hot.
* Is the speaker output lead grounded?
* Are the "-" terminals of L and R speakers grounded in common?
- This unit does not work at all.
* Have you reset your unit?



## INSTALLATION

If you are not sure how to install this unit correctly, consult your JVC car audio dealer.


## ELECTRICAL CONNECTIONS

Make sure to disconnect the battery's negative terminal.

- Be sure to ground this unit to the car's chassis again after installation.


## Note:

It is recommended to connect to the speakers with maximum power of more than 50 W (both at the rear and at the front, with an impedance of $4 \Omega$ to $8 \Omega$ ).
If the maximum power is less than 50 W , change "AMP GAIN" setting to prevent the speakers from being damaged (see page 15 of the INSTRUCTIONS).


Connecting the external amplifiers and/or subwoofer

*1 Not supplied for this unit.
*2 Before checking the operation of this unit prior to installation, this lead must be connected, otherwise power cannot be turned on.
*3 Firmly attach the ground wire to the metallic body or to the chassis of the car-to the place not coated with paint (if coated with paint, remove the paint before attaching the wire). Failure to do so may cause damage to the unit.
*4 Signal cord (not supplied for this unit).

## Connecting an Apple iPod

You can connect an iPod to this unit using the supplied direct connection cable for iPod.



[^0]:    KD－APD49 is equipped with the steering wheel remote control function．
    －See the Installation／Connection Manual（separate volume）for connection．

[^1]:    * If no title is assigned to a station, "NO NAME" appears. To assign a title to a station, see page 16.

[^2]:    *2 Displayed only when an iPod is connected and playback is controlled from the unit.
    *3 Some characters or symbols will not be shown correctly (or will be blanked) on the display.
    *4 Displayed only when "L/O MODE" is set to "SUB.W."

[^3]:    *1 When you stand the unit, be careful not to damage the fuse on the
    rear.
    *2 Not supplied for this unit.

[^4]:    ${ }^{*}$ Not supplied for this unit
    *2 Before checking the operation of this unit prior to installation, this lead must be connected, otherwise the power cannot be turned on.
    $\qquad$

[^5]:    * If no title is assigned to a station, "NO NAME" appears. To assign a title to a station, see page 16.

[^6]:    *2 Displayed only when an iPod is connected and playback is controlled from the unit.
    *3 Some characters or symbols will not be shown correctly (or will be blanked) on the display.
    *4 Displayed only when "L/O MODE" is set to "SUB.W."

[^7]:    *1 When you stand the unit, be careful not to damage the fuse on the rear
    *2 Not supplied for this unit.

[^8]:    *1 เมื่อคุณตั้งชุดประกอบขึ้น ระวังอย่าทำใหฟิวส์บริเวณส่วนท้ายเสียหาย
    *2 ไม่ได้ให้มากับชุดประกอบนี้

[^9]:    *1 Not supplied for this unit.
    *2 Before checking the operation of this unit prior to installation, this lead must be connected, otherwise the power cannot be turned on.

[^10]:    *1 ไม่ได้ให้มากับชุดประกอบนี้
    *2 ก่อนการตรวจสอบการทำงานของชดประกอบนี้ก่อนที่จะติดตั้ง ต้องต่อสายตะกั่วนี้กอนมิฉะนั้นจะไมสามารถเปิดเครื่องได

[^11]:    * If no title is assigned to a station, "NO NAME" appears. To assign a title to a station, see page 16.

[^12]:    * Only while playing an MP3 or a WMA disc.

[^13]:    *1 If the power supply is not interrupted by turning off the ignition key of your car, it is recommended that you select "CLOCK OFF" to save the car's battery.

[^14]:    *2 Displayed only when an iPod is connected and playback is controlled from the unit.
    *3 Some characters or symbols will not be shown correctly (or will be blanked) on the display.
    *4 Displayed only when "L/O MODE" is set to "SUB.W."

[^15]:    Design and specifications are subject to change without notice.

[^16]:    Note : When installing the unit on the mounting bracket, make sure to use the 8 mm -long screws. If longer screws are used, they could damage the unit.
    Catatan : Ketika memasang unit pada breket bingkai, pastikan untuk menggunakan sekrup-sekrup panjang-8 mm. Jika sekrup yang lebih panjang digunakan, maka dapat merusak unit.

[^17]:    *1 When you stand the unit, be careful not to damage the fuse on the rear.
    *2 Not supplied for this unit.

[^18]:    *1 Ketika anda memberdirikan unit, hati-hati untuk tidak merusak sekring di belakang.
    *2 Tidak disediakan untuk unit ini.

[^19]:    ${ }^{*}{ }^{1}$ Not supplied for this unit.
    *2 Before checking the operation of this unit prior to installation, this lead must be connected, otherwise the power cannot be turned on.

[^20]:    *1 Tidak disediakan untuk unit ini.
    *2 Sebelum pengecekan pengoperasian dari unit ini sebelum pemasangan, ujung ini harus sudah dihubungkan, selain itu power tidak dapat dihidupkan.

[^21]:    *1 If the power supply is not interrupted by turning off the ignition key of your car, it is recommended that you select "CLOCK OFF" to save the car's battery.

[^22]:    *2 Displayed only when an iPod is connected and playback is controlled from the unit.
    *3 Some characters or symbols will not be shown correctly (or will be blanked) on the display.
    *4 Displayed only when "L/O MODE" is set to "SUB.W."

[^23]:    ＊1 When you stand the unit，be careful not to damage the fuse on the rear．
    ＊2 Not supplied for this unit．

[^24]:    ${ }^{*}{ }^{1}$ 您豎起本機時，小心不要損閏底部的保隃絲。
    ＊2 不隨本機提供。

[^25]:    ＊1 Not supplied for this unit．
    ＊2 Before checking the operation of this unit prior to installation，this lead must be connected，otherwise the power cannot be turned on．

[^26]:    ＊1 不隨本機提供。
    ＊2 本機末安裝時，進行工作狀況檢查之前，必須把這導線接上，否則不能開啟電源。

[^27]:    * If no title is assigned to a station, "NO NAME" appears. To assign a title to a station, see page 16.

[^28]:    *1 If the power supply is not interrupted by turning off the ignition key of your car, it is recommended that you select "CLOCK OFF" to save the car's battery.

[^29]:    *2 Displayed only when an iPod is connected and playback is controlled from the unit.
    *3 Some characters or symbols will not be shown correctly (or will be blanked) on the display.
    *4 Displayed only when "L/O MODE" is set to "SUB.W."

